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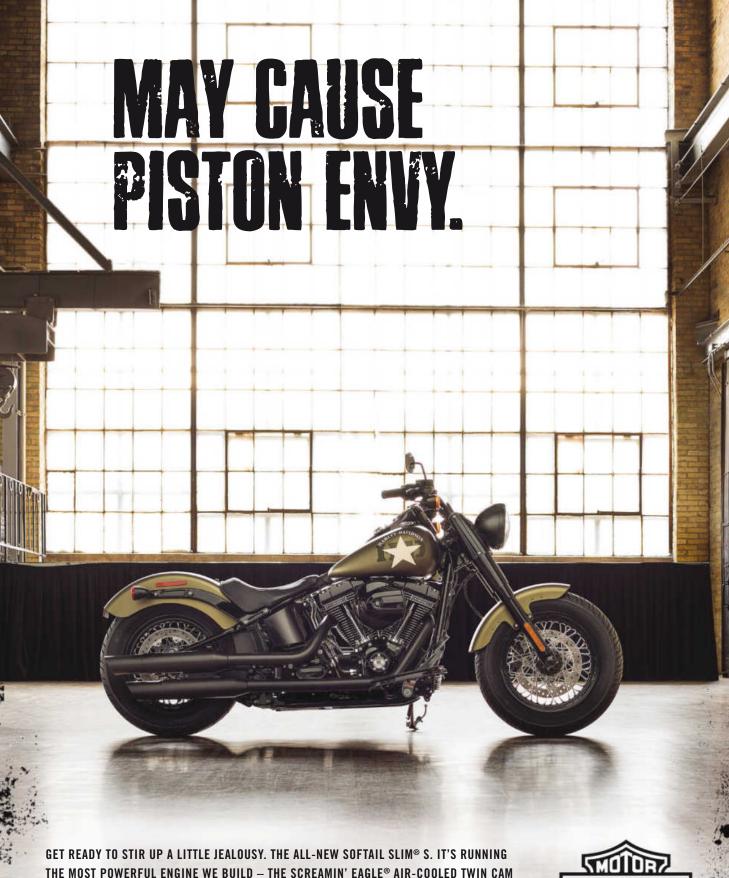
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THE 'STICH

DRESSING FOR LIFE ON A MOTORCYCLE

ow many times have I shuffled in to a store or restaurant sounding like a Cordura choochoo as the nylon surfaces of my sun-faded Aerostich Roadcrafter made that familiar sound and I faced puzzled looks from non-motorcyclists?

That moment is really the best time to transform yourself with a couple of quick zips and step out of the suit in mere seconds to the amazement (or disinterest) of those same onlookers.

The beauty of the Aerostich Roadcrafter is how well it works and how quickly you can step in or out of it. I got my Roadcrafter 15 years ago and still wear it in all its faded-red glory. And while it may be one of the least stylish pieces of gear, its look has become classic in its own funky way.

It was that suit that took me from Los Angeles to Laredo, Texas, in a couple of near-1,000-mile days on a GSX-R600 as I did a story called "The Search for the Perfect Taco" for our annual *Travel & Adventure* magazine.

It was November and the temperature was hovering around freezing for nearly the entire trip. My logic for not taking any heated gear was that I'd be heading south and that it was sure to warm up as I headed for the "tropics." But I was wrong. After eating my way through Laredo and surrounding towns, I was burning back northbound on back roads and had never been so cold in my life as drizzle watercooled me and made bridge crossing treacherously icy. I thought of giving up at Del Rio, getting a room and taking a hot shower, hoping for better weather the next day. But that would have left more than 1,300 miles for me to conquer on my winding route home.

So I pressed on, bike squirming over those bridges and my arms numb to my elbows despite layering all the clothing I had under my Roadcrafter.

When I finally hit a small town

called Marathon, hoping for any accommodations at all, I was at the end of my rope, and just about 1,150 miles from home. The town looked bleak at first, but then, like a mirage, a beautiful 1890s brick building with a polished brass railing and sign that said "Gage Hotel" appeared. I rode by twice, to be sure it was real.

In the lobby where a huge fireplace was raging on this cold day, it was the classic moment of a traveling motorcyclist in his alien-looking gear versus a hunter dressed in camouflage. He looked me and my Roadcrafter up and down, a look of judgment in his eyes, and I thought to myself that anybody dressed like a shrub shouldn't be so judgmental.

I shuffled up to the desk stiffly, got a room, and minutes later I was zipped out of my gear and in a hot shower. Just after that, I was in the restaurant listening to live music and sipping a glass of wine, a fire burning nearby.

In any lesser gear, I would have given up too soon to have this experience.

Now that I have the new Roadcrafter 3, I have found it to be absolutely watertight (unlike my first Roadcrafter) and just as convenient and comfortable to wear. Actually, even more so, since it's unlined, meaning I can layer more effectively when it is cold, but can also stay cooler when the temperature rises. I look forward to 15 years of adventures in this one, knowing I'll be able to make it one more town even in the worst conditions, proud to freak out the citizens in my strange-looking Cordura suit.

MARK HOYER EDITOR-IN-CHIEF



1,150

MOST MILES I'VE RIDDEN IN A DAY

15

YEARS I'VE BEEN WEARING MY FIRST AEROSTICH



The tires you can trust your adventure to

For the ever-evolving new generation of sophisticated adventure bikes, Bridgestone fuses the MotoGP heritage of the Battlax brand and the highly acclaimed all-around excellence of the Battle Wing brand to create tires that deliver enhanced traction and stability, particularly on wet surfaces, and greater durability. These trail radials were extensively tested in a myriad of conditions to ensure sportier, yet safer, performance on all roads, in all weather conditions.





Intake

KICKSTART THE CONVERSATION



Adventure bikes? I'm thinking about being miles from nowhere buying gas out of cans that smell of diesel and kerosene. In the '70s we had dressed-up econoboxes that looked like "sports" cars. Now, we have these sissified "adventure" bikes that won't run without premium gas. Don't wander too far, fellas, the SUV is in the shop having the high-performance off-road cup holders installed.

ED DRAPER
CYCLEWORLD.COM

Ed, if you don't think a spectacular touring bike with 151 hp is an adventure, we're not sure we can help.

MASTER OF RHETORIC?

Why was the BMW R1200GS missing in "The New Superbikes" adventure-touring comparison (Nov. 2015)? It's like trying to find the best pickup excluding the Ford F-150. For me the only real superbike is the new S1000XR. Superbike fast, all-day comfortable, and practical. A real game changer. But I'm still missing the clean driveshaft and the anti-dive/load-separating Telelever like the GS has. Hopefully we see a 150-horse R1300XR with a 17-inch front wheel soon. I want it all.

CHRIS GEUTING DURHAM. CA

MISSED THE ADVENTURE

What sort of "adventures" were your ADV compare bikes actually ridden on? I live in north central Washington where there are hundreds of miles of unpaved forest roads. I've been riding them for years, and the biggest bike I've ever run across was a Honda XR650L.

Hey, I get it. *All* motorcycles are about image and ego. Mine included. But occasionally you have to tip your hat to

the marketers. Water for \$1.50 a bottle? Sure, we can get people to buy that. And \$20K for a huge ADV bike that rarely leaves the pavement? No problem.

Yes, I did see Mark Hoyer's article in the same issue about his WR250R "ADV Lite." A much better off-road choice, IMHO. And a lot cheaper.

> JACK MYNATT LEAVENWORTH, WA

NOT FEELIN' THE SQUISH

I tried to walk away, but I can't. *Up Front* November: If the article is about the poor old Velocette and its pistons, at least use a picture of a vintage piston. It sounds like Hoyer might have boxes full of them. I have never had a Velo apart, but I assume it has a piston like a Gold Star, etc., with a two-valve hemi head. I find it hard to believe that a 50-year-old Velo had a modern four-valve squish piston. I feel better now.

BILL MYERS MILWAUKEE. WI

Hoyer has plenty of Velo pistons laying around but can't bear to look at them.

EGAN SHOCK THERAPY

Great mag. Been reading it ever since, well, shortly after Peter Egan joined. Speaking of whom, while sitting at the dentist's the other day I noticed an article by him on the cool, new 2015 Morgan three-wheeler in Road & Track, so I suggest you put the electrodes on him until he cranks out some more columns for Cycle World.

ED SAGER

COCHRANE, ALBERTA, CANADA

No electrodes required, just two of the biggest motorcycle icons of the '70s on the road in the Midwest in "Classic Rematch" on page 38.

WHO SAID IT WAS SLOW?

It really is more fun to ride a slow bike fast than to ride a fast bike slowly. I see more people recognizing this all the time.

I was thrilled to open my November issue to find two Velocette references! Mark Hoyer and Paul d'Orleans are on to something with their love of these fine machines. Like Hoyer, I ride a '54 Velo MSS. I have bikes more than a half-century newer and with five times more power yet I ride the Velo for grin factor.

Of course, most aren't interested in a daily vintage ride. That's where the new Ducati Scrambler or other vintagethemed offerings come in.

I am encouraged to see younger riders inspired by the scrambler/café scene. Vintage and modern classic riders tend to run in the same circles and I expect today's modern classic riders will become tomorrow's owners of vintage bikes.

Manufacturers take note: Simple is cool.

JOE WRIGHT AMES. IA







CHE BELLA:

New Monster 1200R is loads of fun on the track, but we'd like an R model with cornering ABS, electronic suspension, and maybe even the 1299 Panigale motor.

BY THE NUMBERS

MILLIMETERS: Diameter of the Monster 1200R's massive header pipes, in millimeters. That's 2.3 inches!



160

HP: Claimed horsepower of the Monster 1200R V-twin, which has bumped compression and larger (56mm) throttle bodies.



2016 DUCATI MONSTER 1200R

Exclusivity is spelled with an R By Brian Catterson

he letter R has a glorious history with Ducati. Denoting "Racing," it has stood atop a pedestal high above the base and S (for "Sport") models in the superbike, sport-touring, and even naked families. R models traditionally come with a raft of upgrades and a higher price. In the past, those upgrades have been radical—recall the 996R, which was the first to employ the Testastretta engine—but they've also been as subtle as higher-spec suspension and a smattering of carbon fiber. The 2016 Monster 1200R falls somewhere in between.

Mechanical changes from the Monster 1200S are modest yet purposeful. The R model gets higher compression (13:1, up from 12.5:1), larger elliptical throttle

bodies (56mm versus 53mm), and larger header pipes (58mm versus 50mm), which together boost output to a claimed 160 hp at 9,250 rpm (up from 145 bhp) and 97 pound-feet of torque at 7.750 rpm (up from 91.8). The S model's Öhlins suspension has been revalved (but not resprung) and the shock lengthened 15mm for increased cornering clearance. A firmer, flatter seat is easier to move around on, toothier racing footpegs provide better toeholds, and individual rider and passenger footpeg brackets combined with new pentagonal-shaped mufflers no longer kick your heels out at an odd angle. Cosmetic changes include a carbon-fiber front fender, bikini fairing, reshaped solo seat cowl, and racing stripes.

Given these few changes, it was surprising that Ducati invited the press to sample the Monster 1200R at the 3.4-mile Ascari Race Resort in Spain. It rained biblically the night before our test, and while the sun shone in the morning, the track remained flooded in spots. So at the behest of our hosts, we began the day in Urban power mode (there is no Rain mode) then switched to Touring mode for the second session. Where Urban cuts power, Touring merely dulls response, which given the numerous damp patches

















DETAILS. DETAILS: The Monster 1200R comes in traditional Ducati Red and, for \$200 more, a sinisterlooking Thrilling Black. Special radiator side metal covers and a plaque on the red-stitched seat identify this Monster 1200 as an R model. Also noteworthy: This is the first Ducati to meet stringent Euro 4 emissions standards, which require a California-style evaporative canister along with reduced mechanical noise. Steering damper is from Öhlins, naturally.

on the circuit wasn't a bad idea.

Finally, just before lunch, we were given the go-ahead to switch to Sport mode, which proved exhilarating. With traction control set on 2 and ABS on 1, I could push the Monster much harder than I thought while still having a virtual safety net. Still had to watch those damp apexes though!

Traditionally, my biggest beef about naked bikes is this: While they're comfortable compared to a sportbike, they don't work that well when the pace quickens. As you raise the handlebars you raise the rider and thus the center of gravity, which makes naked bikes wheelie-prone and difficult to drive off corners. Ironically, you find yourself having to hang off farther than on a regular sportbike. Ducati addressed this issue with a lengthy 59.4-inch wheelbase that helps keep the front end planted-not that you can't wheelie when you want to!

Those who have ridden a Monster 1200S at trackdays report that the exhaust power valve mechanism drags badly in corners, but we had no such problem on the R, decking only the footpegs and sidestand. With the bike rolling on three-spoke Marchesini forged aluminum wheels shod with Pirelli Diablo Supercorsa SP radials—a massive 200/55 out back—traction is not a problem! Raising the rear end also reduced rake and trail, which quickened steering but mandated the fitment of a steering damper. At Ascari, the chassis proved stable yet neutral, the suspension firm yet supple, and the Brembo radial brakes strong if a tad lacking in initial bite.

The familiar Testastretta 11° Dual-Spark V-twin offers plenty of power, yet with spot-on throttle response delivered in a tractor-like fashion the Monster 1200R is easy to ride fast. Gearing was too tall for the racetrack, but the ratios are nicely spaced, and the clutch/ transmission action is excellent. Another thoughtful addition is the digital gear indicator, but the lack of a quickshifter seems like a sin of omission on an R model Ducati.

And that's my one reservation: The 1200R, at \$18,695, costs significantly more than the KTM Super Duke R yet makes less power and has fewer features. Seems to me it should have all the bells and whistles, such as cornering ABS, electronically adjustable suspension, and—dare I say it?—the 1299 Panigale motor. Only then would this Monster live up to its R designation.

ENGINE TYPE DOHC 90° V-twin

DISPLACEMENT 1198cc

SEAT HEIGHT 32.7 in.

FUEL CAPACITY 4.6 gal.

CLAIMED WEIGHT 456 lb.

BASE PRICE \$18,695





AERODYNAMICS AND SAFETY

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PERIPHERAL VISION

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VENTILATION

The size and positioning of the air vents are the result of intensive computational fluid dynamics and wind tunnel testing. The ventilation system ensures a constant flow of fresh air inside the helmet















CW FIRST RIDE

2016 KAWASAKI Z800 ABS

Z wait is over for Kawasaki's affordable middleweight streetbike **By Don Canet**

here's little doubt that the sales success of the Yamaha FZ-09 sport naked has prompted Kawasaki USA to go after a chunk of a growing segment with its own strategically priced middleweight streetfighter. The new-for-the-US 2016 Kawasaki Z800 is a ready-made player, having become Kawasaki's number-one-selling street model in Europe since its 2013 debut abroad.

It all makes perfect sense, as the \$8,399 Z800 fills a price and displacement void that has existed between the Ninja 650 and Z1000 in Kawasaki's Stateside lineup—well, make that 49 states for this year while Kawasaki works through the process of California emissions certification. It's tough luck for Golden State residents, but the rest of the country can enjoy this fun and affordable addition to the growing middleweight naked segment right now with units presently shipping to dealers.

Ironically, Kawasaki hosted a press ride for the new naked in Palm Springs, California, where I spent a day in the saddle "polluting" the local mountain air. Transit from our staging point at the Parker Hotel through numerous traffic

signals leading to the pristinely paved Highway 74 offered a sense of the Z800's inner-city manners.

The 806cc liquid-cooled inline-four is ultra-smooth throughout the lower half of its rev range. Abundant low-range torque, excellent fueling and throttle response, along with very fluid clutch and shift action made pleasing, relaxed work of leaving stops, short-shifting up through the six-speed box, and coming to a smooth stop at the subsequent red light.

The Z is narrow-waisted, making the reach to the ground seem less than its 32.5-inch seat

16 CYCLE WORLD JAN./FEB. 2016 PHOTOGRAPHY BY KEVIN WING

height might suggest. The saddle is on the firm side and the riding posture sporting, with high-ish pegs and a forward reach to the attractive satin black tubular handlebar. Ample legroom within the tank cutouts will accommodate taller riders and fit my 5-foot-10 frame very well.

As we hit the twisting ascent from the desert floor up the mountainside, I soon discovered the buzzier side to the Z's character. Once revs surpass 6,000 rpm, an onset of engine vibration builds and becomes very noticeable through the grips, frame, and seat. An indicated speed of 75 mph on the all-LCD dash equates to 6,000 rpm in top gear, sneaking in just under the buzz and allowing a pleasant experience and clear rear view through the mirrors at the legal limit.

Power delivery is linear all the way to the rev limiter that cuts in at 12,200 rpm, as displayed on the vertical bar-graph tachometer. Drives off corners hard on the throttle always felt tractable and controlled. If wheelies are your wish, the Z800 doesn't possess nearly the snap of the FZ-09 and requires a bit of clutch abuse for such antics.

The KYB inverted fork and piggyback reservoir shock don't appear to be cost-cutting components. While rebound damping and spring preload can be altered front and rear, the standard calibration proved excellent, offering good bump compliance yet maintaining balanced and composed handling at a sporting pace. The Dunlop Sportmax D214 radials offered good cornering grip and a neutral steering feel even when trailbraking to the apex on corner entry. I found no fault in the power and sensitivity from the Nissin ABS-equipped brake system at a spirited street pace.









While the Z800 isn't an allnew model, it's a welcome fresh face on our shores. And unlike many first-year machines, this one arrives with an existing extensive knowledge base and healthy catalog of accessories from its years in the market overseas.

Price and performance are in line with the competition in the class, though the FZ-09's engine beats it on immediacy and personality while the Z800 gets better marks for OE suspension performance. A head-to-head comparison awaits to see where the best overall balance lies.

Z DETAILS

A recurring Z-pattern theme is evident in the bikini fairing, LED taillight bulb arrangement, and seat skin texture. The triangular muffler aids cornering clearance and lends a cool appearance.



liquid-cooled, DOHC, inline-four, 4 valves/cyl.

DISPLACEMENT

SEAT HEIGHT

FUEL CAPACITY

CLAIMED CURB WT. BASE PRICE

CW FIRST LOOK

2016 KAWASAKI ZX-10R

Soichiro Honda may be credited with saying, "Racing improves the breed," but Kawasaki took those words to heart with the development of its latest open-class Ninja **By Matthew Miles**



ince its introduction five years

ago, the fourth-generation Kawasaki ZX-10R earned two World Superbike titles, 40 race wins, and 33 pole positions. Tom Sykes is credited with the lion's share of those achievements, but it was the arrival of Dutch crew chief Marcel Duinker at the end of 2011 that marked the beginning of a three-year run in which the bearded Brit finished either first or second overall in the

championship points.

When Kawasaki pulled out of MotoGP at the end of 2009. Duinker was one of two engineers who made the move to World Superbike.

With Duinker's help, Sykes won the championship in 2013 and narrowly missed a second successive title in 2014. This past season, Kawasaki's dynamic duo of Sykes and Duinker faced a new challenge-primarily

technical-which led to the new machine you see here.

For the unveiling of the 2016 ZX-10R last October in Barcelona, Spain, Duinker was the first person brought onstage. "During the middle of 2014," he later told me, "we understood the new rules for this year, which gave us less freedom to tune the bike to Superbike level. The biggest impact was on engine character. We weren't allowed to make









Claimed wet weight for the 2016 ZX-10R is 454 pounds. A steel gas tank holds 4.5 gallons. The race kit ECU provides additional electronic adiustability. including clutchfree downshifts.

Two color choices: Lime Green KRT Edition (above) and Metallic Matte Carbon Gray (right). Pricing ranges from \$14,999 for the standard ZX-10R to \$16.299 for the top-of-the-line ABS SE model.



modifications to the crankshaft, for example, and we knew that life would be more difficult for Tom in 2015. Like everybody could see, this year was a lot tougher for us."

Duinker went on to explain that Sykes "is a very special rider. He keeps the corner very 'short,' using the power to stop and the power to accelerate like nobody else in this championship. If you had been riding this bike for a number of years and were suddenly given a handicap, accepting this and adapting your style to the new technical circumstances would be very hard. Still, after a few rounds, we were able to win some races."

Other riders might be ecstatic with the results Sykes achieved this season: six pole positions, seven fastest laps, four race wins. and third overall in the championship. Except Sykes' new

teammate, longtime Honda rider Jonathan Rea, had 14 race wins, 11 fastest laps, two poles, tallied a near record number of championship points, and wrapped up the title two rounds early—all on the same motorcycle.

"From my experience with Honda," Rea said, "I learned to accept what package you have and try to make the best out of it. In the past, the manufacturers had the luxury of shaving some weight off the crankshaft. At Honda, we always used a standard crank.

'When I arrived at Kawasaki. I had to ride a completely different bike. The cockpit was different. The riding position was different. The geometries were different. The power character was different."

Rea, whose riding style Duinker described as "very fluid," made use of the heavier crank. "The nature of the power is a little softer, and that improved tire life," he said. "We set some lap records this year in the last laps of races."

Regardless of how well Rea adapted to the previous model, the new ZX-10R has a lighter crankshaft and primary gear, which contributed to a claimed 20 percent reduction in moment of inertia. "For this new bike," Duinker said, "we tried to get the total number [moment of inertia] as close to the bike from the last couple of years." Added Sykes, "I think what you'll see with less inertia is much better performance all around-straight-line acceleration, braking, corner entry, change of direction."

At Mazda Raceway in 2013, Pirelli Racing Director Giorgio Barbier said, "The Kawasaki is more sensitive to front tires than any other bike." (Pirelli is phas-



THF NFW ZX-10R HAS A LIGHTER CRANKSHAF AND PRIMARY GEAR. WHICH CONTRIBUTED TO A CLAIMED 20 PERCENT REDUCTION IN MOMENT OF INERTIA.



Kawasaki has made to the chas-

front-end geometry, are straight development from our World

sis," Duinker said, "especially

Superbike history."

likewise features pressurized

twin-tube damping. Brembo now supplies the entire front brake

system: four-piston M50 calipers,

330mm discs (up from 310), and a





The fully digital dash reflects new electronic controls. Broad shoulders are more likely to fit behind the wider windscreen. An Öhlins steering damper receives inputs from rear-wheel speed sensor.



Claimed to be more powerful, the 998cc engine is also cleaner, meeting Euro 4 emissions. Exhaust ports are now polished, like the intakes, which are machined in two stages. Cassette-style transmission with new ratios is accessible without draining engine oil. Exhaust system is titanium.

"THE CHANGES KAWASAKI HAS MADE TO THE CHASSIS," DUINKER SAID, "ESPECIALLY FRONT-END GEOMETRY, ARE STRAIGHT DEVELOPMENT FROM OUR WORLD SUPERBIKE HISTORY."

radial-mount master cylinder.

A comprehensive electronics suite incorporating a five-axis IMU (a sixth axis is calculated within the ECU) includes Sport-Kawasaki Traction Control (S-KTRC), Kawasaki Launch Control Mode (KLCM), Kawasaki Intelligent antilock Brake System (KIBS), and Kawasaki Engine Brake Control. A Kawasaki Quick Shifter (KQS) and an Öhlins electronic steering damper are standard. We anticipate learning more about the electronics and their actual functions at the overseas track

launch in January.

Rea rode a preproduction machine for a photo shoot, outtakes from which were shown to the press in Barcelona. "I've never experienced electronics on a streetbike," he admitted. "Straight away, I was so impressed. In the back of my mind, I was thinking, 'When is ABS going to make it in top-level racing?' I was having fun at the end trying to do big, rolling stoppies, and it seemed almost impossible to get the bike really out of shape. From a safety point of view, it's really good."

With the 2016 ZX-10R, Kawasaki has made continued success in World Superbike job number one. "At the beginning of this project," Large Project Leader Yoshimoto Matsuda said, "I made an announcement to the company: 'We don't develop any cosmetic features." No one is more grateful for that approach than Duinker. "Kawasaki listened very well to our needs," he said. "Next vear's bike almost fulfills all the areas we need to improve our performance and challenge for the title. Next year is another era for us."



NINJA NEW

"If you want to go fast on the track," said Pere Riba, Jonathan Rea's crew chief, "you have to make the bike really easy to ride—the rider cannot be fighting the bike. Working closely with the factory makes it much easier to understand the limitations of the bike. Step by step, we understand the best and weakest points of the bike. This is why we change the balance, the weight distribution, a little bit. Together with all the new parts inside, we made the package much stronger than the other bike."



DAN GURNEY'S NEW BIG TWIN

Patented new "moment-cancelling" twin is being developed by the American auto-racing legend

By Kevin Cameron

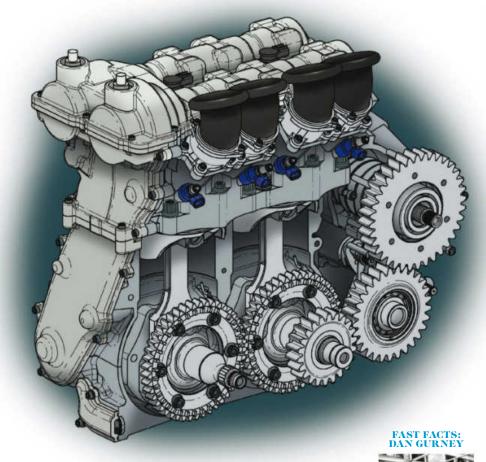
→ From time to time, we've reported on the unique Alligator series of feet-first motorcycles designed and built by Dan Gurney's All American Racers organization in Santa Ana, California. Early examples were powered by modified production engines, but inevitably, because of Gurney's grand past of auto racing and a life spent at the center of highperformance design, he wanted to do an engine of his own.

The work began with S&S-based V-twins with high-tech AAR heads, but we all know that narrow-angle V-twins shake, and we know they are not particularly compact. He and his merrymen have therefore designed a compact big-inch (110 cubes) twin that not only cancels its own primary vibration but is designed from the start with every proven element of high-performance design.

Where did vibration go? The patented engine balances itself by having two counter-rotating crankshafts that are geared together; when the pistons are up or down, the crank counterweights are down or up, and when the pistons are at mid-stroke, the crank counterweights are going in opposite directions.

Okay, air-cooling is traditional for big twins, and we love the look, but when Harley has to water-cool the exhaust valve seats of its top twins, the party's over. Time for water-cooling, to make it possible to make real power, reliably.

Mind you, Gurney wanted his engine to run just fine on pump gas, and he wanted it to last a long time, so killer compression ratios and otherworldly rpm from the



racetrack were out. At a moderate 4,200 feet-per-minute piston speed, this twin (with a bore and stroke of 5.00 x 2.8 inches) will peak at 280 hp at 9,000 rpm. To make power despite these limits, the engine has to breathe at state-of-the-art level, and to that end Gurney's longtime associate, ex-dirt-tracker Chuck Palmgren, and others have developed highly optimized and rational porting. Each cylinder's four valves are set at very low included angle to give a flat, open, and fast-burning combustion chamber.

In case you are preparing to scoff, imagining that we're talking about a giant "GSX-R" twin with a light-switch powerband, forget that. This engine is to have the hydraulic cam phasers that have been ho-hum automotive technology (yes, they are now on Ducati's 1200 Multistrada) for years. At low crank speed, the cam timing shifts to give Harley-like torque, and as the engine revs up, timing shifts to

remain optimal, giving GSX-R-like top power. No more wheezing out on top for big torque on the bottom. Let's call this "having it all."

Gurney originally wanted to use this engine in a late-version Alligator that was nearly ready. And then he got to thinking of all the other possible applications for a compact, low-vibration powerplant. Why, it could be built with two, four, six, or eight cylinders, for bikes, cars, boats, even helicopters. So, on August 11 of this year, Gurney was granted US patent 9, 103, 277 B1 for a "moment-cancelling fourstroke engine." What's "momentcancelling"? One of the things that strongly affects a motorcycle's "flickability" is flywheel gyroscopic moment. Just as the gyro moments of Yamaha's twin-crank YZR500s canceled each other, so do those of Gurney's new big twin.

Gurney hopes to have running hardware soon, so he can see how close simulation and reality are. It will have a great sound.



- → Gurney started the tradition of spraying champagne after winning Le Mans in 1967, just one week before he won the Belgian Grand Prix at Spa in his Eagle, which was built at Dan's shop in Santa Ana, California.
- → Dan's three uncles were MIT engineers. Also, his grandfather, F.W. Gurney, was responsible for the invention of the Gurney Ball Bearing.
- → The initial production run of 36 Gurney Alligator motorcycles quickly sold out. These Alligators are now prized by collectors.
- → Gurney and Bruce McLaren are the only F1 drivers to win a Grand Prix in a car designed and built by their own teams.







There are so many ways to track the speed of a bike at a racetrack, but few are as stylish as Reactor's Warp watch (\$600). The case is made of 316L stainless steel. Water resistant to 200 meters, the Warp is available in multiple finishes and bezel color options. With its tachymeter and chronograph, keeping track of time and speed is simple. → (800) 291-6600

reactorwatch.com



BMW BIBLE

If you're a huge fan of

BMW motorcycles, you should check out **The** Complete Book of BMW Motorcycles: **Every Model Since** 1923 by Ian Falloon (\$50). Available through amazon.com, this 288page, 9.75 x 12.0-inch, year-by-year guide includes every production motorcycle ever built by BMW: Airheads, Oilheads, Twins, Fours, Sixes. They are all here. → amzn.to/1NYmkn8



HOLESHOT!

The most important moment of an MX race is the start. Get to the first turn first for a better chance of a good finish. **Pro Circuit Racing** has iust released a version of its Launch Control (\$109.95) for the 2016 Kawasaki KX450F. The CNC-machined aluminum device has a springless design and start trigger to simplify setting it before the start. → (951) 738-8050 procircuit.com



HEAD PROTECTION

The Shoei X-Fourteen (\$682-\$840) race lid arrives in the spring. Shaped for reduced drag and added stability, it has a hand-laid shellmade of interwoven lavers of fiberglass with organic fiber-that comes in four sizes. Trickest feature: An adjustable liner provides four extra degrees of upper vision to help the view when rider is tucked.

→ (714) 730-0941 shoei-helmets.com



MOTO SLIPPERS

Riding boots that manage to be comfortable and rugged on and off the bike are hard to find. but Blundstone's pull-on

Ducati Scrambler

Boots (\$250) do so with style. They're made with premium Stout Brown leather with a green elastic, and they have Scrambler yellow trim and comfort footbeds. The left boot has a gearshift protector. → (800) 437-2526

us.blundstone.com



LOOKING GOOD

RETRO INSPIRATION

Classic style, modern protection By Don Canet

Riding gear offering contemporary technology in materials, construction, and crash protection doesn't need to look like something RoboCop would wear. Some of the coolest-looking gear today melds classic vintage style and comfort with modern safety features. We've assembled five sets of kits spanning a broad price range that wear well and look great on or off the bike.

SPIRIT OF 79

Quality and craftsmanship in these items from Swiss apparel producer iXS had us hard-pressed to find a stitch out of place. The soft and supple bovine nappa leather Elliott jacket celebrates the brand's late '70s origin, has a polyester mesh lining, zip-out thermo vest liner, shoulder and elbow armor, with plenty of pockets inside and out. "Super duty" best describes the stone-washed Cassidy II jeans, featuring aramid fabric in seat, thigh, and knee (the last with adjustable armor cups). Goatskin leather with thin polyester lining throughout makes the Taran glove ultra comfortable. Don't let the court-shoe look fool you. The nappa leather Strada riding sneaker has a soltoTEX membrane that's waterproof and breathable.





iX5		
ixsusa.com	sizes	price
Elliott jacket	38-50	\$409
Cassidy II jeans	26-48	\$439
Taran gloves	XS-2XL	\$69
Strada boots	4.5-12	\$209
Elliott jacket Cassidy II jeans Taran gloves	38-50 26-48 XS-2XL	\$409 \$439 \$69





BADASS MIX

Of all the leather jackets I've worn, none gets comments like the Roland Sands Design Oxblood Ronin. Its rugged hand-finished, washed, and waxed Airborne cowhide exterior is contrasted by a satin lining. Rotated, pre-curved sleeves, internal slots for accessory armor, and plentiful pockets have you covered. Signature forehand flex ribbing/zipper, padded finger knuckles, and the pre-curved fit make the RSD Dezel glove a knockout hit and fit. Premium denim with DuPont Kevlar in the knee, hip, and seat make the Diamond Gusset Defender V2 jean a safe choice, and its unique gusset crotch design improves comfort on and off the bike. The full-grain leather TCX X-Blend boots have a vintage look with modern waterproofing and reinforcement in ankle and heel. They felt properly broken-in right out of the box.





ROLAND SANDS DESIGN		
rolandsands.com	sizes	price
Ronin jacket	S-3X	\$620
Dezel gloves	S-2X	\$90

DIAMOND GUSSET JEAN CO.		
gusset.com	sizes	price
Defender V2 jeans	32-46	\$165

TCX		
TCXboots.com	sizes	price
X-Blend boots	6-12.5	\$220





ALPINESTARS		
alpinestars.com	sizes	price
Ray canvas jacket	S-3XL	\$299.95
Charlie denim	28-38	\$259.95
Rayburn leather gloves	S-3XL	\$99.95
Rayburn riding shoe	6-14	\$249.95

OSCAR COLLECTION

This outfit pays homage to the prestigious Italian fashion and design "Oscar" awarded to Alpinestars in 1972–'73. The Ray jacket features a super-comfortable water-repellent heavy waxedcanvas cotton and nylon outer shell with shoulder and elbow cups and internal pocket for add-in back protection. Charlie jeans have a regular/slim fit and are made of heavy denim incorporating stretch elastane for comfort and fit with aramid reinforcement in seat and knee areas and removable knee armor. Rayburn gloves are made of goat's leather with synthetic suede reinforcements on the palm and outer hand, along with molded polyurethane knuckle protection. Rayburn riding shoes are constructed of supple full-grain leather with heel/toe/shank reinforcement and dual-density ankle protection pads.





RUST AND REDEMPTION

As the name implies, Speed & Strength Rust and Redemption textile jacket and denim jeans plus Cruise Missile leather boots are a retro-inspired ensemble for the rat bobber rider. The jacket has a lightweight water-resistant AR-700 (polyester and nylon) shell with reflective trim and microfiber-lined collar and cuffs, perforated panels, and a removable insulated vest liner. Shoulder, elbow, back, and knee armor and Kevlar panels in the seat and knees enhance protection. The gloves have hinged knuckles, reinforced palm, and a pre-curved fit that feels great from day one. A bit biker in style and design, the Cruise Missile boots feature an outer-calf stretch panel and inner-ankle zipper for what I like to call a ballistic entry.





SPEED & STRENGTH		
ssgear.com	sizes	price
Rust and Redemption jacket	S-3XL	\$199.95
Rust and Redemption armored jeans	30-40	\$149.95
Rust and Redemption gloves	S-2XL	\$69.95
Cruise Missile boots	8-13	\$139.95



ICONIC OLD SCHOOL

Icon 1000, a brand within the brand, caters to the cruiser and retro segments. The Vigilante jacket has a herringbone textured nylon torso, pliable cowhide sleeves, and a zip-out insulated vest liner. The outfit includes D30 impact protection for shoulder, elbow, back, knuckles, and knees. While water resistant, the relaxed-fit waxedcanvas Royal Drive jeans do not have aramid reinforcement. Traditional work glove styling meets modern moto protection with the studded palm cowhide Rimfire. A personal favorite is the mid-height El Bajo boot constructed of heavyduty top-grain leather in Goodyear welt fashion. Inside ankle zipper allows easy entry, while castmetal buckles, stamped heel plate, and embossed leather lend vintage style.







ICON		
rideicon.com	sizes	price
Icon 1000 Vigilante jacket	XS-4XL	\$300
Icon 1000 Royal Drive pant	28-44	\$100
Icon 1000 Rimfire gloves	S-4XL	\$90
Icon 1000 El Bajo boots	6-14	\$190

WeatherTech

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ALL ABOUT BONES

Some strategies for safeguarding your bones By John L. Stein



ike Las Vegas and lost wages or Harvey Wallbangers and hangovers, bikes and broken bones unfortunately sometimes go together. Unappealing, true, but there's good news. "Bones are among the only tissues in the body that heal without scarring, returning to normal after a fracture," says Dr. Chris Proctor, a board-certified orthopedic surgeon based in Santa Barbara, California. "Your bones are constantly breaking down and rebuilding, so the bone structure you had 10 years ago is not the structure you have today."

We asked Dr. Proctor if humans are innately deficient in bone structure. "No," he says. "If a bear could ride a bike and collide with a truck, he'd break his leg too. So we aren't flawed physically; instead our flaw is in the brain. An ancient hunter-gatherer would not break bones because he could only run so fast;

bones started breaking when we started going faster."

Aging does not necessarily make bones brittle, but being female does. "While a 30-year-old male typically has the strongest bones, a man in his 70s still may have no signs of osteopenia or osteoporosis," Proctor notes. "However, women's bone densities are typically lower than men's and vary based on age and race." To learn your own bone density, ask your doctor to order a test.

Meanwhile here are some strategies for safeguarding your bones.

• LOWER EXTREMITIES ARE MOST AT RISK. Bicyclists break their collarbones and snowboarders their wrists. But street riders tend to suffer lower-extremity injuries when they contact a car or truck. This can range from hips to legs, ankles, and toes.

• **PROTECT SOFT TISSUES.** "From an orthopedic standpoint, we can do wonders in repairing bones," Proctor says. "But if you crash wearing shorts and sneakers and grind away the skin, muscles, tendons, and ligaments, those sometimes cannot be fixed."

- **ARMORED APPAREL HELPS.** Wearing armored protective gear will help reduce the forces that can break a bone. But perhaps just as importantly, it can save the soft tissue that surrounds bones and joints from being worn away by asphalt.
- BUILD STRONGER BONES. Lifting weights and doing impact exercises builds stronger bones. "Someone who does weight training or runs is going to have stronger bones than a swimmer," Proctor says. "The more stress on the bones, the stronger they get."

ILLUSTRATION BY Ryan Inzana



THE ARTS OF THE MOTORCYCLE

BIKES INSPIRE A FLOWERING OF ALL ARTISTIC DISCIPLINES
BY PAUL D'ORLEANS

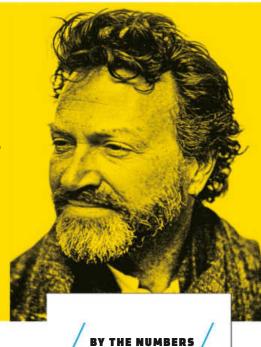
he thir<mark>d annual Motorcycle</mark> Film Festival is a wrap—another victory over a six-decade legacy of malign bike films. Not that all the films were bad, mind you, but filmmakers from Jean Cocteau to Roger Corman have exploited the dark side of bikes, tarring us all in the process. Cocteau, with his surrealist/poetic bent, was first to name the shadow cast by all motorized Centaurs, using a mismatched pair of Indians (a '37 Chief and '40 Sport Scout) to symbolize Death's henchmen in his 1949 masterpiece *Orphée.* An update of the Orpheus myth, the film featured a murderous lesbian bohemian gang-the Bacchantes-who tear the hero limb from limb after he fails to keep his neglected wife (and former gang member) out of Hades. Nobody makes bike flicks like that anymore.

But folks do make terrific films today, and our Best of Fest-Out of Nothingwas brilliantly crafted from humble source materials: four lunks from Bellingham designing/building Bonneville bikes. The other 34 films screened were well worth watching, and folks turned up from around the world to do just that. Meanwhile, down the street in Brooklyn, Jane Motorcycles hosted the Oil & Ink Expo, a collection of contemporary graphic poster and print art, curated by John Christensen. The show is traveling around the US; the art is uniformly excellent, very affordable, and the imagery ranges from Bauhaus clarity to punky messiness, all celebrating that thing we love.

Oil & Ink was inspired by an explosion of terrific graphic art supporting the alt. custom and chopper scenes. Every moto

event has become a poster opportunity, and a clutch of talented artists have established global reputations painting up bikes, helmets, illustrating magazine stories, or simply feeding their Instagram: Max Paternoster, Sophie Varela, Adam Nickel, Martin Squires, Lorenzo Eroticolor, the Hood sisters, etc. The best new bike shows feature work by these artists on the otherwise empty walls surrounding new machines, reinforcing this moment of tremendous creativity with metal, camera, or paintbrush.

Pinstripers and bike painters are having a moment too, and Nico Sclater (Ornamental Conifer) has become the Von Dutch of the alt.custom scene. Which is totally fitting, as this whole customizing thing was kicked into life by Kenny Howard in the late 1940s. The teenage Howard (later dubbed Dutch) pushed his Indian Scout out of the bob-job orbit in 1946, adding a peanut tank, cowhorn bars, and, most importantly, a personalized paint job. Howard is most famous for "taking a line for a walk," as Paul Klee suggested in 1923, using his pinstriping brush as a totally new tool for vehicle decoration, and the genre would never be the same. It was as exciting for me to discover photos of his crazy chopped Indian Scout in 2010 as it must have been for any motorcyclist in his day, and from that bike, a new scene exploded into life. It's still very much alive 70 years later, despite regular predictions of its demise by navsayers and flat periods when "the rules" hardened into cliché. Today we're seeing the biggest rush of creative energy around motorcycles since the 1960s; this is a new golden age and won't last forever, so dig it while you can.



MOTORCYCLE FILM FESTIVAL

74

FILMS SUBMITTED TO THE MOTORCYCLE FILM FESTIVAL



70

YEARS SINCE VON DUTCH BUILT HIS FIRST INDIAN CUSTOM

110

AVERAGE PRICE IN DOLLARS
OF A PRINT FROM THE
OIL & INK EXPO

RICHES

IT MIGHT BE GOOD TO LIVE TWICE

BY KEVIN CAMERON

n the summers of 1966 and 1967, my idea of riches was the bikes and spares we took to the races. There is wonderful satisfaction in hefting completed, race-ready bikes into a van and securing them. The spares boxes contained everything else. In the lift-out top tray of a cheesy steamer trunk were six new pistons, each in its white cardboard box. Each ring had its own palegreen-and-red box, 6mm high, marked NPR for Nippon Piston Ring. Each time I hear NPR announce itself on the radio, I think of those boxes and those black Parkerized circlets.

A multi-compartment plastic box contained the range of main jets. Another held irreplaceables, such as the tiny eccentrics that moved the magneto's contact breakers during adjustment of timing and points gap. In a hefty molded fiberglass case that had once carried some kind of defense electronics was a spare crankshaft—13 pounds of hope-we-don't-need-it-but-just-in-case.

Also present were all possible crash parts—hand and foot controls, cables, footpegs.

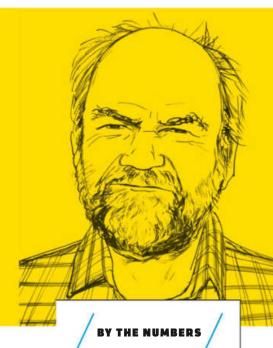
Maybe it's not possible to explain to a non-participant how attractive all these things were to us. Think of them as kitchen utensils and supplies—flour, milk, bowls, and spoons-ingredients for something anticipated with pleasure. Those pistons were neither round nor straight until they reached operating temperature in our engines. Until then, they had a muted sheen that reflected from the closely spaced tool marks of their diamond turning. As those pistons expanded to become intimate with the cylinder walls, their heat flowed out through the oil film to the cylinders, preventing (we earnestly hoped) any further expansion. Their temperature stabilized in closeness to the cylinder wall. The art of engine tuning, to which we all aspired, sought to achieve all the power possible without

that "further expansion" that could crush the oil film and weld piston to cylinder.

Tools, too, were wealth, every one chosen and carried for a specific purpose. During throttle synchronization, the 7mm threaded cable ferrule and its 7mm locking nut were loosened, the ferrule turned to the degree required, and the locknut tightened, using a pair of smooth, satisfying-to-look-at Snap-on 7mm combination wrenches. There was a simple pleasure in their use because of their sheer fitness for purpose.

This morning, as I was unloading the dishwasher, my left pocket snagged for the umpteenth time on its badly designed door handle. I shifted my eyes to the nearby oven door handle; it had been designed by a thinking person with the same sense for good design that informed those 7mm combination wrenches: Its shape flowed smoothly into the door, with no possible place to snag anything. Good design. Pleasure. Art.

I have written before about my Robinson wire twisters. I stood in a visitor parking lot at Cape Canaveral, looking at an obsolete rocket engine (a timedout test article?) mounted as an outdoor display. At every point requiring safety wire, the wire had been uniformly twisted, cut off, and the sharp cut end bent 180 degrees so it could never pierce anyone's thumb as mine had been pierced. Safety wire is all but obsolete today in aerospace—such fussy, laborintensive practices have been eliminated by the time-and-motion people and by self-locking fasteners. But that doesn't stop me from thinking of an unnamed line mechanic, up on a wavering roller stair, head and shoulders between some late-departing Constellation's prop blades, safety-wiring some necessary last-moment adjustment. Just looking at a set of twisters calls up departed worlds of romance and adventure.





375

TOP SPEED, IN MPH, OF THE FOUR-ENGINE LOCK-HEED CONSTELLATION, WHICH WAS BUILT FROM 1943 TO 1958 IN BURBANK, CALIFORNIA.

274.68

CHEAPEST PRICE, IN DOLLARS, WE COULD FIND ON AMAZON FOR A HARDCOVER COPY OF RICARDO'S THE HIGH-SPEED INTERNAL-COMBUSTION ENGINE.



1931

THE YEAR NPR (NIPPON PISTON RING CO., LTD) WAS FOUNDED IN JAPAN. With tools, the other great force-multiplier is information—books, manuals, files, measurements. There are marvelous close-up photos of Ducati engine parts in my copy of Ducati's "black book" of 2001. Nowhere else have I seen such photos. If for some reason I need an estimate of the drag caused by a strut, a mirror, or a wheel, it is somewhere in my used copy of Hoerner's Fluid-Dynamic Drag. I value especially the wear on books that have been my useful friends a long time.

Oils and their additives were explained to me by authors Gunderson and Hart in Synthetic Lubricants. I would have no copy of Harry Ricardo's The High-Speed Internal-Combustion Engine were it not for the wonderful generosity of three readers. Ricardo didn't get on with math, so his book—often revised since originally published in 1923—actually explains in words all of us can understand

what goes on inside engines. Ricardo was one of at least three discoverers of the flame-speeding effect of compression "squish." Falling to pieces are my original copies of Phil Irving's Tuning for Speed and Motorcycle Engineering, which remain good reading and good information.

Another reader sent me copies of articles written during World War II by Norton race boss Joe Craig, describing gradual piston ring failure under light detonation. Craig saw in 1935 that Stan Woods' win in the 500TT on a swingarm-equipped Guzzi had put an end to all the talk about, "Nothing steers like a rigid." Priceless eyewitness words on things I care about.

Before the tiny recorders every journalist now carries, after every interview with a rider or engineer at trackside, I would walk out of sight, then whip out a notebook and write down everything I

THAT **SUGGESTS** IT MIGHT BE GOOD TO LIVE TWICE-ONCE **FOR EXPERI-ENCE** AND A **SECOND** TIME HOPING FOR **UNDER-**STANDING.

could remember. Often when writing about related matters, I refer to those numbered notebooks and in a sense may learn more than what the words say; in the time since I wrote them, I've learned other things that now shed further light on those old notes. That suggests it might be good to live twice—once for experience and a second time hoping for understanding.

Manufacturers go to some expense to prepare wonderful line drawings and cutaways of new models. Then they throw the undistributed copies away. Here, such things go into files where they were very useful when I was still writing books. People don't write books anymore now because nearly everyone assumes anything worth knowing is online. Despite that, I continue collecting the information that interests me. I hope it may interest you too.



THE 5th ELEMENT





KTM is on a roll and has been for some time.

In the past decade it has gone from a company whose only street offerings were relatively simple singles to one producing world-class V-twins bristling with the latest technology. It seems like eons since 1991, when CEO Stefan Pierer (see interview, page 36) intervened to rescue the Austrian dirt bike manufacturer from bankruptcy. It's hard to fathom for Americans who think of KTM as the brand that Ryan Dungey races, but thanks to its partnership with Bajaj in India plus factories in Argentina, Brazil, Colombia, and Malaysia, KTM sells more streetbikes than dirt bikes nowadays.

For 2016, there's a new street model called the Super Duke GT. Based on the award-winning 1290 Super Duke R—a.k.a. "The Beast"—the GT is more touring oriented with a half fairing, a slightly larger passenger seat, and saddlebags as standard. That sounds like a simple upgrade—and to an experienced motorcycle manufacturer like KTM, it is—but there's a whole lot more that goes into such a project, as I learned during a visit to the Austrian factory this past October.

All KTM—and now also Husqvarna projects follow the same basic protocol. After an idea is conceived, KTM's product development team turns over the project to their counterparts at Kiska, located not far from Mattighofen in Anif, a suburb of Salzburg. Led by founder Gerald Kiska, this design firm just celebrated its 25th anniversary, and with a collaboration going back 23 years KTM is one of its oldest clients. So intertwined are the two companies that KTM Technologies occupies the rear third of Kiska's stylish new offices, though the former is slated to move back across the parking lot to the latter's old offices in the near future.

I visited Kiska the day before my GT test ride and was shown around by Marketing Coordinator Rebecca Wideson. As she explained, all projects start with exhaustive research, conducted not in shotgun fashion but one on one, face to face, with real people. Showing us the storyboard for the KTM Duke lightweights as an example, her associate Verena Olschnögger explained that they actually stopped young people in

the street to ask them what they wanted in an entry-level motorcycle. Another time line detailing KTM's acquisition of Husqvarna started with "Pierer's phone call," progressed through "BMW loses focus" and ended in the motto "The Pioneers of Motocross." This sort of research helps influence the direction future products will take.

That process was pretty straight-forward with the GT. The mission statement, according to Kiska Senior Designer Christof Taubl, was to "keep the Super Duke's DNA while adding comfort." So after a series of sketches, a mock-up was built atop a 1290 Super Duke R. A new fairing stay and subframe were created using a 3-D printer, and then the fairing, fuel tank, bodywork, and seats were molded in clay. When the mock-up was completed, the team had an accurate representation of what the GT would look like.

One other design criterion was to use as few parts as possible, thus the fairing stay helps route air to the undertank airbox and the cornering lights are incorporated into the turn signals. The Kiska designers aren't content to design simple parts when there is a possibility of making something more attractive. So where the space between the rider and passenger seat might ordinarily be filled by a nondescript plastic insert, Kiska spec'd a billet-aluminum piece with a KTM logo. Not every such part makes it into production, however: "Always we battle with the engineers because the best function is not always the best design," Taubl says with a laugh. "I think that's one of the big difference with KTM bikes: The designers work very closely with the engineers and try to inspire each other."

With the GT scheduled to debut at the EICMA Show in Milan in mid-November and to hit US dealerships in May of 2016, specifications had yet to be finalized at the time of my visit. Mechanically, not much is changed from the Super Duke R, but it's noteworthy that for 2016 all models must meet Euro 4 emissions standards, which require reduced mechanical noise and a California-style evaporative fuel canister. The GT also incorporates a

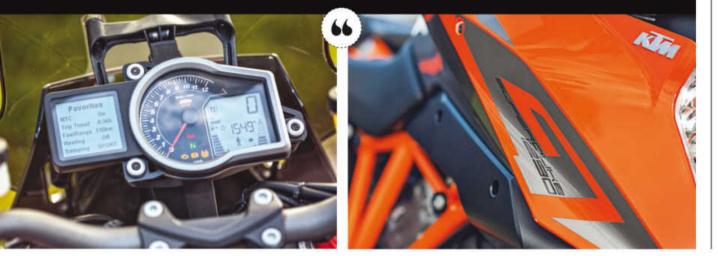


few lessons learned during development of the 1290 Super Adventure, including reshaped combustion chambers that optimize charge swirl, narrower intake ports that smooth throttle response at low rpm, and new connecting rods with improved bearings. The clutch is also 10 percent stronger to allow extended high-speed running. A new straight-through muffler with an internal flapper valve helps boost low to midrange torque while still meeting noise standards.

Like the Super Duke R, the GT boasts all of the latest electronic rider aids, chief among which is Motorcycle Stability Control (MSC). Developed in cooperation with Bosch, this incorporates cornering ABS, traction control, wheelie and rear wheel lift mitigation, hill hold assist, and probably a few other func-



BASED ON THE AWARD-WINNING 1290 SUPER DUKE R—A.K.A. "THE BEAST"—THE GT IS MORE TOURING ORIENTED WITH A HALF FAIRING, A SLIGHTLY LARGER PASSENGER SEAT, AND SADDLEBAGS AS STANDARD.



tions I'm forgetting. "We decided to work exclusively with Bosch instead of also with Continental because they are both really big companies and KTM is comparatively small," explains Gerald Matschl, KTM vice president of R&D in charge of street development. "A lot of know-how is developed on both sides, and because we work only with Bosch, they are much more open. Otherwise there is always the fear to transfer some know-how from one to another."

The GT's MSC is similar to that employed on the Ducati Multistrada, with some subtle differences. Mainly, when you select one of the three ride modes (Rain, Street, Sport), the engine power, traction control, and the damping in the WP semi-active suspension all change simultaneously. Should you desire Street ride mode with Sport suspension, for example, you must first select the former and then the latter. "We were thinking to be able to change the levels up and down, but we found it much easier for the customers to give them the three different modes," Matschl explains. "Many of them get lost if you give them too many things to work around."

Both the traction control and the ABS can be turned off (but only at a standstill), while the ABS can also be turned halfway off, as there is a Supermoto setting that disables the rear. If you don't know why that is, this is probably not the bike for you; at the very least, it's not the setting for you. The WP semi-active suspension also improves upon that of other manufacturers by having four preload settings instead of just three (again



ON THE RECORD



Stefan Pierer

KTM's CEO is methodically painting the motorcycle world orange

By Brian Catterson

THAT'S THE MOTIVATION, TO COMPETE
AGAINST THE JAPANESE. That's the only thing that's driving us. It's coming close. It's like in motocross: Every lap you look to see how far ahead your competitors are. We can see already the yellow one (Suzuki) and the green one (Kawasaki) are not too far away.

THERE'S A LOT OF ROOM TO GROW, ESPECIALLY ON-ROAD. In Europe you are talking about a 10 percent total market share, and in the United States it's between 5 and 6 percent. As for the emerging markets, in India we have a strong foothold with our partner Bajaj, but there are some in which we are not doing as well. It is very difficult to do business in Brazil, but if you want to become a global motorcycle producer, you have to be there.

YOU NEED NEW PRODUCTS. There was a dramatic situation with the economy in 2008–2009. We didn't know how much the business would go down; it turned out to be about 40 percent. We got rid of all things we didn't need to survive, but what we didn't stop is developing new products. So the crisis, if you look back, was also a huge opportunity.

THE THREE KEYS TO SUCCESS ARE BRAND,

GLOBALIZATION, AND INNOVATION. That, for sure, is the backbone of our success. Also what's very important is we have one of the most experienced management teams making clear, sharp, and quick decisions.

HUSQVARNA IS THE EUROPEAN INTERPRETA-TION OF HARLEY-DAVIDSON, IN A WAY. It is the second-oldest motorcycle brand and made all types of bikes during its 100-plus years. So we are able to enter the street market with the socalled "new classic retro naked bike." And that doesn't affect KTM because retro is not part of KTM's philosophy.

SAFETY IS A VERY IMPORTANT RESPONSI-

BILITY. We are the first manufacturer to have ABS on all of our street models, even the 125s. Fortunately we have a strategic cooperation with Bajaj, which produces almost 4 million entry-level bikes per year, so we have an affordable ABS system. It will take time, but I'm convinced even cornering ABS will come down to the 125s someday.

WE WILL GO MOTOGP RACING IN 2017 AND BUILD A REPLICA FOR SERIES PRODUCTION: THE RC16 V-4. Closed-course only. A superbike with more than 200 horses, in my opinion, shouldn't go on a public road. We will do everything in-house with no outside teams. It is very ambitious, but it's the only way to come close to a podium. Anyway, all the knowledge we get from that program we need for our premium-

priced products.

THE FREERIDE E HAS BEEN FOR SALE FOR HALF A YEAR NOW. We were thinking the buyer would be the young mountain-bike guy or the really sporty enduro guy who wants to train in his private garden. But it's hunters, landlords, guys up in the mountains running restaurants or whatever. For now it's limited by the high price, but if the cost of batteries comes down, it will become a serious alternative. For urban mobility, for sure it's coming, but I don't see big bikes going electric in the short term.

THAT EVEN THE CAR MANUFACTURERS ARE INVENTING FOR URBAN MOBILITY: ELECTRIC, THREE-WHEELERS, FOUR-WHEELERS, WHAT-EVER. But it's not a motorcycle. It's not a part of the motorcycle world in the future. The biggest lesson we learned from our ATV experience is to keep focused on priorities. We are a motorcycle producer, both on-road and off-road, and let's focus on that. So much to do and still so much room to grow. Still we are a small company compared to our competitors.

THERE ARE A LOT OF DIFFERENT CONCEPTS



THE BEAST GOES EAST...AND WEST...AND EVERYWHERE ELSE. US MODELS WILL COME WITH COLOR-MATCHED SADDLEBAGS, BUT THE ONLY COLOR SCHEME SO FAR IS SILVER AND ORANGE. HEATED HANDGRIPS ARE STANDARD, WHILE HEATED SEATS ARE OPTIONAL. REMOVING THE BAGS DOES NOT REVEAL ANY UNSIGHTLY MOUNTING HARDWARE.

only adjustable at a standstill).

There's also something called a Motor Slip Regulator (MSR), which as Matschl explains is "basically the reverse of traction control." While the GT has a mechanical slipper clutch that counteracts back torque during downshifts, that only works when the road surface has a high coefficient of friction. (Humorously, the engineers refer to this as "MU," so they sound like a herd of cows when discussing it.) On a slippery surface, where back torque would threaten to break rear-wheel traction, the MSR raises rpm just enough to prevent loss of stability. So, yes, the engine is accelerating slightly while you're decelerating. While no KTM is yet fitted with auto-blip downshift assist as on the latest Ducati and BMW superbikes, that is envisioned for 2017.

Another new development is an electronic quickshifter that varies its cutout duration according to rpm and throttle position and is actuated by not one but two internal sensors—one on the shift

shaft and another on the drum. This prevents premature actuation when the rider is simply toeing the lever in preparation to shift. ("Shift request," the engineers call that.)

I experienced déjà vu during my GT test ride because in 2004 I rode the original Super Duke prototype on many of these same roads. A circuitous route over western Austria's rolling green hills to lunch (but sadly no laps) at the famed Salzburgring race circuit gave me adequate time to gain an impression of the GT. The verdict? It is what you would expect it to be: a Super Duke R with better wind protection and someplace to carry your stuff. It's much more than the sum of its parts, however, as nothing about it feels tacked on. If you didn't know better, you'd suspect that this was an all-new model developed from the ground up.

Aside from those new creature comforts, the GT feels every inch a Super Duke R. It's still crazy-fast, lofting wheelies whenever you whack open the

throttle or crest a rise. And it still handles superbly, changing direction with ease despite the added weight of the fairing and bags. The revised engine spec really does make a difference in terms of flexibility, as you can negotiate switchbacks in third (or even fourth) gear with no chugging. In fact, my only criticisms had to do with a slight surge between 4,500 and 5,500 rpm and the occasional hiccup from the quickshifter—though the latter may have been partly my doing. Both of these faults will likely be rectified before production commences.

On the strength of class-leading streetbikes like the Super Duke R, Super Adventure, and now this GT, KTM is poised for even greater success in the future. Already the largest European manufacturer in terms of market share and unit sales, KTM has Suzuki in its gunsights (and Kawasaki is not too far ahead). How long will it be until we are forced to refer to the "Big Four" as the "Big Five"?



TRAVELS WITH A PAIR OF MID-'70s SUPERBIKES,
JUST 40 YEARS AFTER THEY SEDUCED A GENERATION.
OR AT LEAST ONE MEMBER OF A GENERATION...

CLASSIC





NORTON COMMANDO vs. BMW R905



REMATCH

By **Peter Egan**Photography
by **Drew Ruiz**







A few weeks ago, with summer truly here and the locust trees in full bloom,

I flipped open my ancient cell phone and gave
Editor Mark Hoyer a call at the CW office in California.

"What I have sitting in my workshop at this moment," I said,
pausing for dramatic effect, "are two rival superbikes from the
mid-'70s—a 1974 Norton Commando and a 1976 BMW R90S—and
they're both in pretty nice shape. One is quite British and the other
is very German. I think it would be neat if you could fly out here to
Wisconsin for a little classic comparison test/tour and
take some photos before I drop one of them in the driveway
and ruin everything. Or the Norton wears out."

"Where were you thinking to go?"

"Oh, probably through the western Wisconsin hill country toward the Mississippi. Stay in some small towns where they have craft breweries—maybe try some English-style porters and German bocks. We could take the back roads down to Galena, Illinois, a restored old mining town and river port. It's also the home of U.S. Grant. If you stayed an extra day, we could play a little guitar."

Hoyer, a dark-beer enthusiast, Norton owner, guitar aficionado, and history buff who likes riding on our twisty rural lanes showed up a short time later. If you can think of any buttons I failed to push, let me know.

In truth, the idea for this little outing was more than a sudden whim. The kernel of the idea went back almost exactly 40 years. Let me explain:

One fine September morning in 1975, my wife Barbara dropped me off, helmet in hand, at a motorcycle shop called Madison Suzuki/BMW/Norton. I was there for the joyous business of taking delivery on my new black and gold Norton Commando. I'd chosen the Interstate version—with the oversize 7.3-gallon tank—because Barb and I harbored illusions of extended transcontinental travel. Those

were optimistic times.

When I arrived, the bike was parked in front of the showroom, right next to a brand-new BMW R9oS—then in its second year of production—with a lovely two-tone Silver Smoke paint scheme. This was another highly tempting bike on my personal radar at the time, but it was almost unimaginably expensive. Nearly twice as much as my new Commando, which was heavily discounted because the Norton factory was about to close its doors.

In a way, these two bikes were crossing at the upward and downward arcs of their factories' fortunes; Norton was going out of business after 73 years of building legendary motorcycles, and BMW was ascending new heights because the glamorous R9oS was rescuing the company from its staid image and finding a legion of first-time buyers.

Nevertheless, those two bikes made a nice snapshot, sitting there in front of the showroom. The BMW was elegant, tidy, and very Teutonic in its purposefulness. The Hans Muth-designed bodywork had a beautiful unified flow to it, and the misted paint made the bike look like some kind of Black Forest wraith beaming itself through patches of light and dark. Quite Wagnerian.



BMW IS MORE LIKE A GREYHOUND THAT'S BEEN TRAINED TO BUILD

SPEED IN LINEAR FASHION. NOT AS

EXCITING, BUT POSSIBLY

MORE RATIONAL.

My bike died at the first stoplight. And at all subsequent stoplights. Then on the way home it... Well, don't get me started. Let's just say the Commando was not a paragon of reliability. At 3,000 miles it seized a valve in Missoula, Montana, while Barb and

Norton ads just inside the front cover of Cycle World. I had to have one, and nothing else would do.

So Marko and I shook hands, put on our helmets

and rode off happily into the future.

Or at least he did.



I were attempting to ride to Seattle, and we had to send it home in a Bekins moving van. After that, we continued our trip by train and Greyhound bus. The best thing I can say about this trip is that I wrote a story about it and got my first-ever article published here in Cycle World.

I've often wondered what life would be like if I'd come home with Marko's BMW that day instead of the Commando. Would CW have bought a story called, "Young Couple Successfully Reaches West Coast on Reliable German Motorcycle"? Probably not. Maybe life unfolds exactly as it should, and this is the best of all possible worlds.

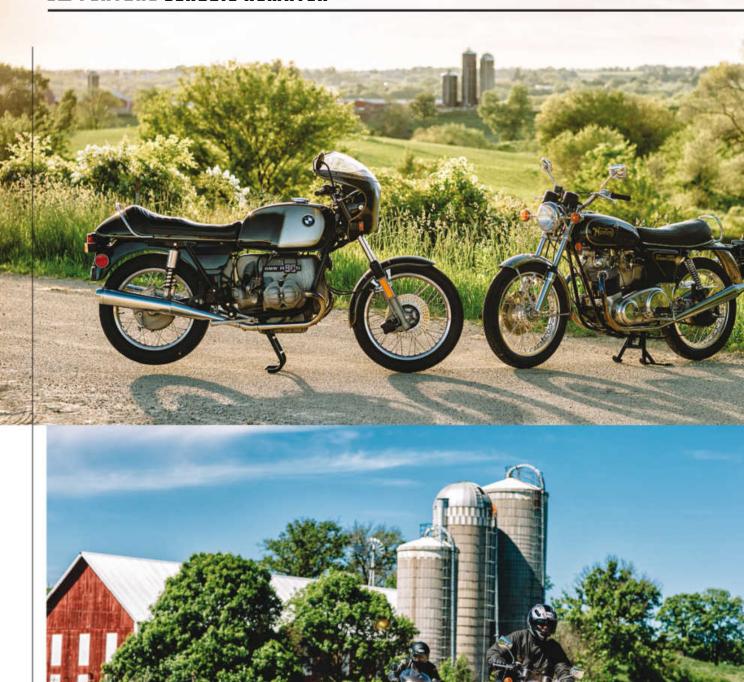
In any case, Marko's prediction eventually came true. I've owned several BMWs since 1975, and last fall I bought a Silver Smoke 1976 R90S—almost exactly like his. But I've never lost my affection for Nortons, either, and have owned and restored a series of Commandos. I seem to be addicted for life.

My current Commando is a black and gold 1974 Roadster that was given to me a couple of years ago by a friend who wanted to see it restored rather than parted out. It had been in a shed for 25 years and needed everything. It took me one full winter—and plenty of money and new parts—to restore the bike, but I've been riding it now for more than a year without any trouble. It's stock, except for electronic ignition, alloy Production-Racer-style rims, and a sleeved-down brake master. Also, I left the rear hubcap off because I like the look of the inner casting.

The R90S is a clean and unmolested bike, originally from San Francisco, still with its original paint and only 44,000 miles on the odometer. I bought it late last fall from my friend Mike Mosiman in Fort Collins, Colorado. He put it up for sale when he suddenly realized, to his horror, that he had one too many airheads—and that the bike's low bars hurt his back. Also, he's a good guy and knew I'd been looking for a nice R90S for several years.

So of course I sold two of my other old bikes to buy this long-coveted item and trailered it home from Colorado exactly one day before our first big snowstorm. This is what passes for "life simplification" in my universe. After that the BMW became a static display item that warmed my heart every time I turned on the lights in my workshop. But now it's

Editor Hoyer flew in and showed up with two pho-







tographers, Drew and Carter, whose handy rental car allowed me to take the hard bags off the BMW and my ancient Eclipse tank bag off the Norton, so as not to distract from their aesthetic purity. Mark had never ridden an R9oS (gasp), so he started out on that bike and I took the Norton.

OLFACTORY GLANDS OF THE

WEAK AND TIMID.

I climbed aboard the Commando, and it started first kick, which it usually does even though I've left out the seldom-used choke slides for the sake of simplicity. So you simply "tickle" the twin Amal carbs (which sounds more mirthful and less messy than it is) and kick it over with a mighty leap. Riders weigh-

ing less than 150 pounds need not apply.

The 828cc parallel twin roars to life and soon settles down into a regular idle that has the engine bouncing ever so lightly up and down on its rubber Isolastic mounts. Those two big pistons rise together on the 360-degree crank and would like to fly to the moon, but the connecting rods hold them back. Usually. The front fender vibrates at an amplitude of about 2 inches, so even the hard of hearing will know when the Norton is running.

Snick the lovely gearbox into first (one up and three down on the right-side foot lever) with a well-oiled click and we're off. At about 2,000 rpm the Isolastics drop into sympathetic harmony with the engine and the Norton accelerates with almost glassy smoothness through the gears. The exhaust has a regular, mellow, but hard-hitting punch that may be one of the nicest sounds in motorcycling. Throttle response is instantaneous, and the bike accelerates in an asphalt-spitting rush, feeling remarkably quick and muscular even by modern standards. This combination of smoothness and performance has prompted many British bike enthusiasts to name the Commando "most tourable" of British vertical twins.

Meanwhile, on the R9oS, Mark turns on his fuel taps, pushes down the choke lever on the left side of the engine cases, and merely hits the starter button. No gasoline is slathered. The engine fires almost immediately with a rocking motion, and the pumper Dell'Orto carbs let it idle with a slightly hollow and metallic exhaust note. The left-shifting gearbox (one down and four up in the modern mode) accepts first with a reluctant grunch and is then slightly notchy on all shifts that follow. It's one of the enduring mysteries of the late 20th Century that BMW, builder of long-lived, precision engines, didn't produce a truly slick gearbox in that era. It works okay but never endears itself to your left toe.

As we accelerate out onto the highway, the R9oS has no trouble staying with the Norton but lacks its immediacy. The Commando accelerates like a Rottweiler tearing across the lawn to bite your leg, but the BMW is more like a greyhound that's been trained to build speed in linear fashion. Not as exciting, but possibly more rational.

A number of subsequent top-gear roll-on contests over the next three days will reveal that the more explosive Norton can always pull away by a couple of bike lengths, at any speed—until we approach 100 mph, and then the BMW starts to move inexorably ahead. We didn't proceed much over 100 mph because, (a) gosh, that would be illegal; (b) we have a lot of nervous deer around here; and (c) the Norton has two pistons that would like to fly to the moon. Suffice it to say that these two bikes are so close in performance as to be an almost perfect match on a backcountry ride.

We stopped for lunch in the small Swiss village of New Glarus, home to the venerated New Glarus Brewery and Puempel's Olde Tavern, where Braun-





"WITH THE NORTON," I SAID, "YOU FLARE YOUR ELBOWS OUT AND ATTACK THE CORNER; WITH THE R90S YOU TUCK IN AND DISPOSE OF IT."



schweiger and Limburger sandwiches terrorize the olfactory glands of the weak and timid. The green hills of Wisconsin support some 60 craft cheese factories, and a large number are found around New Glarus. And the same steep hills that tip over your tractor—and therefore encourage the grazing of dairy cows—also give you really good motorcycle roads. The landscape looks like the Swiss border in *The Great Escape*, only the local Germans are friend-lier and there's no razor-wire fence to jump over.

We traded bikes and wicked it up a few times on the nearly empty farm roads, stopping for a handling comparison conference. "The BMW feels like a bike with a very deep keel," Hoyer concluded, "almost gyroscopic. It's very formal in its handling. You set up for a corner properly, turn in, and it just stays planted, all the way through. The Norton is nimbler and quicker steering, more adaptable to sudden changes in the road, but not as settled."

I agreed completely. "With the Norton," I said, "you flare your elbows out and attack the corner; with the R9oS you tuck in and dispose of it. The BMW is more stately and less manic, better at the big sweepers."

Brakes? We both agreed that the BMW's brake pads were made of some hardwood but couldn't decide between mahogany and oak. The Norton



lever has a more sensitive and progressive feel, probably because I installed a sleeved-down master cylinder to encourage this trait. Both bikes stop pretty well when they really have to.

We sped along on County Highways H and F, down into the old lead mining district of southwestern Wisconsin, where towns have names such as Lead Mine, Mineral Point, and New Diggings. The ready availability of lead in the early 19th century pulled in thousands of miners from Cornwall and other exotic places, such as Missouri, creating much friction with the local Indians. Tons of lead was mined out of these hills, some of which is still said to be embedded in the forests around Gettysburg and Shiloh.

Turning straight south on Highway O, we crossed the Illinois border and took back roads into the beautiful old river port of Galena—named for a variety of lead ore and now a mecca for antique hunters. Here we checked in at the historic DeSoto House Hotel, built in 1855. They had a nice covered parking garage, where we checked over the bikes.

The sharp-eyed Hoyer noticed that the pinch-bolt had jittered out of the Norton's front axle. Not critical, as long as the axle nut was in place, but we'd have to find a hardware store in the morning. We had dinner at the hotel then went down Main Street to look for the Galena Brewing Company so we could try a pint of Uly's Dark, an oatmeal stout with a picture of General Grant on the label. But a sign on the pub said it was closed on Monday nights.

In the morning we went to U.S. Grant's home, a nice old brick structure overlooking the town. It was closed on Mondays and Tuesdays. I considered naming this "The Closed Mondays and Tuesdays Tour." My advice to the reader is just to read Grant's autobiography and have a beer at home. This will save me a lot of descriptive typing.

Next stop, hardware store. We replaced the pinch bolt on the Norton, and I noticed quite a bit of oil drooling from the area around the left side cover. Seems my ingenious homemade catch bottle/ breather canister, designed to keep the Commando's oil out of the air cleaner and off the rear tire, was slightly overfull. As I knelt on the ground, cleaning the oil up with contact cleaner and a filthy piece of paper towel, Hoyer said, "I have to admit, this is the kind of thing you seldom see a BMW owner doing on the roadside."

After that small repair, however, the Norton minded its manners and we motored across the Mississippi bridge into Dubuque and cut north along the high riverbanks of Iowa. A long, gravel road took us down a valley to the dock of the Cassville Ferry and we crossed back to the Wisconsin side. A fuel stop revealed similar fuel mileage for the two bikes—both in the low 40s—but the BMW could safely go about twice as far on its 6.3-gallon capacity as the Norton with its svelte 3.0-gallon tank. Still, 100- to 120-mile fuel stops can sometimes be a welcome break from sitting.



Speaking of which, Hoyer and I both agreed the riding position on the R9oS suited us perfectly. When you assume the position, you feel like a cast human figure who's been clicked into exactly the correct spot on a model motorcycle. The Norton is pretty good too—with the lower European bars installed—but those beautiful forged footpeg brackets are a bit far forward. You sit on the Norton and in the BMW, almost enveloped by it.

Nightfall found us at yet another historic old stone hotel/B&B, the Walker House, in Mineral Point, with a restaurant and pub called Brewery Creek just across the now-missing railroad tracks. Nice hotel, friendly owners, good food, several fine beers. We'd hit paydirt. One of the hotel owners was a retired college professor, so my bedtime reading was an English translation of Andre Gide's *The Immoralist*. Quite different from the usual Gideon Bible, and when we left in the morning I was philosophically confused.

Nevertheless, Hoyer and I stopped on the way back to my place to discuss motorcycle philosophy over lunch—in New Glarus again, at a Swiss restaurant called the Glarner Stube. I posed this deep question: "If you didn't already own a Norton Commando and could take just one of these bikes back home for your own, which one would it be?"

He thought for a few moments and said, "The Norton. It's just more exciting and agile on these back roads. The BMW is too formal for me. You have to set up for corners and do what the bike wants, as

though you're just along for the ride. The Norton just does what you want to do. What about you?"

"That depends," I hedged. "On a one- or two-hour ride, I'd take the Norton—which I usually do. If I were repeating this 350-mile route we've just finished—or if Barb and I were trying to go to the West Coast again—I'd automatically take the BMW. Over a long distance, my soul is more at rest on the R90S. The BMW always has its eyes on the horizon, while the Norton is focusing on the next apex."

When we got back to my workshop late that afternoon, we put the bikes on their centerstands, sat back, opened a beer, and looked quietly at them for a while. I told Mark, "I've decided to conclude that the BMW is a sublime motorcycle and the Norton is a sublime experience. What do you think?"

He tilted his beer toward me in a small toast and said, "That's it."

Thinking about it now, I'm not sure these bikes were ever direct rivals for the same territory, either on the road or in your soul. One is really a sport-touring or GT machine, and the other more a pure sportbike—never mind that big "Interstate" gas tank on our old Commando, which was mostly a matter of wishful thinking. So maybe the Commando and R90S don't so much rival as complement one another. A friend with a Norton shop told me some years ago that if his customers owned a non-British bike, it was most likely to be a BMW.

Makes perfect sense to me and sounds like the best of all possible worlds.



ONE IS REALLY A SPORT-**TOURING OR** GT MACHINE. **AND THE** OTHER MORE **A PURE** SPORTBIKE. SO THEY DON'T SO MUCH **RIVAL AS** COMPLEMENT ONE ANOTHER.





ATHUC'S GAME

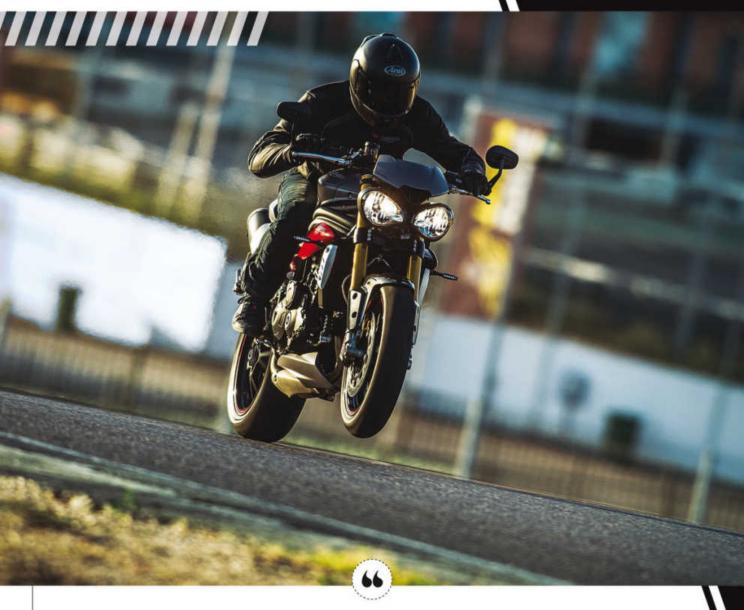
TRIUMPH MAKES A SUBTLE PLAY WITH THE SPEED TRIPLE, ITS ORIGINAL STREETFIGHTER. WILL IT BE ENOUGH?

By Steve Anderson

TRIUMPH'S SPEED TRIPLE is perhaps the brand's biggest image builder, the machine that most brought the modern Triumph back to enthusiasts' attention. Arguably the first streetfighter when it was introduced in 1992, it went on to become the rockingest, meanest one that money could buy later in that decade and in the first years of the 21st century.

Those days, however, are over. In a world where KTM 1290 Super Dukes and BMW S1000Rs thunder and howl, the 1,050cc Speed Triple had given up its claim to quickest and baddest rights some time ago, which makes the very thorough overhaul of the Speed Triple for 2016 very interesting: Rather than go for a complete redesign that would enter the Speed back





THE ENTIRE MACHINE SIMPLY LOOKS MORE REFINED, A LITTLE MORE DANIEL-CRAIG-MENACING-IN-A-BESPOKE-SUIT RATHER THAN JASON-STRATHAM-BRUTAL-IN-A-T-SHIRT.

into the streetfighter power wars, Triumph did something more subtle: It focused on making the Speed more beautiful and making it a better machine in almost every way so that its rider interacts with it.

First, the restyling: The main emphasis was to make the Speed Triple look longer, lower, and give it an organic, aggressive appearance. Low, ovalized twin headlights with LED light guides remind of the early twin round headlight models while sitting low on the

fork. The instrument cluster and windscreen have been pushed down, as has the fly screen that covers them, while the tank has been reshaped so that the fuel filler is now the tallest point on the entire bike. Mirrors are now a very sporty bar-end configuration, and the radiator is smaller, more efficient, and neater looking. The seat is more than 3/4 of an inch narrower where it meets the tank, and the entire machine simply looks more refined, a little more Daniel-Craig-menacing-in-a-bespoke-suit rather

than Jason-Stratham-brutal-in-a-T-shirt.

The engine remains 1,050cc, but almost everything else about it has changed—Triumph claims 104 new parts. Even the gears driving the balancer shaft have been re-profiled for quieter operation. The biggest changes though are in the power-producing side. A new cylinder head and pistons create new combustion chambers that work with a thorough retuning to enhance midrange power without sacrificing top-end performance. In the extremely important midrange







between 4,000 and 7,000 rpm, Triumph claims the new engine is 5 to 7 poundfeet torquier than its predecessor. Feeding that head are new electronically controlled throttle bodies controlled by a ride-by-wire throttle. This allows different throttle maps to be offered along with full-authority traction control. There are five selectable rider modes, from Rain to Race, and the traction control is rider configurable. The new power comes with an improved slipper-assist clutch, one that slips on back-torque while further tightening on driving torque. This allows clutch springing to be lightened, reducing clutch effort in a way that almost always makes a motorcycle feel subjectively lighter. The retuning of the Speed Triple benefits its performance and rideability and carries it through 2016 noise and emission regulations-while also

substantially improving fuel economy, according to Triumph. The company cites a 17-percent improvement, which should be sufficient to be noticeable in real-world riding range. Similarly complying with mandatory EU requirements, the new Speed Triples also come with standard ABS, which is user switchable.

As before, the Speed Triple also comes in an "R" variant. For 2016, the "R" gets relatively high-specification Öhlins suspension. (With Öhlins, there is always something better. Want \$30,000 MotoGP forks? No problem. Öhlins will sell those to you along with a \$150,000-a-year service contract to keep them adjusted properly.) At the front, that means the Öhlins Road-and-Track fork with the racing-derived NIX 30 damping cartridges that place rebound and compression in separate fork legs, and all adjustments,

including preload, at the top of the fork. At the rear, it's the Öhlins TTX RSU shock, essentially identical to the one used on a million racebikes, with a hydraulic spring-preload adjuster. Completing the "R" package are the usual carbon-fiber bits, including the front mudguard.

So the Speed Triple for 2016 is a calculated gamble on Triumph's part. The company has elected to leave winning the streetfighter power wars to others and has concentrated instead on appealing to the eyes and other senses of motorcyclists, betting that a better-looking, better-feeling, and better-performing motorcycle with improved rider enhancement features (traction control, ABS) is enough. It will be left to testing to find out how strongly that argument resonates in the metal.

Kendon Folding STAND UP™ Motorcycle Trailers

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MILD-MANNERED GODZILLA

THE HOLESHOT PERFORMANCE SUZUKI BANDIT 1250: 52 POUNDS LIGHTER, 40 HP STRONGER, "IGOR" WILL **BLOW YOU AWAY**

By Don Canet Photography by Jeff Allen

ome sportbikes get all the love. Poke around any bike night or grudge match at the local strip and you'll find enough tricked-out supersports, liter-class superbikes, 'Busas, and Ninja ZX-14s to keep a thriving performance aftermarket from looking too far outside the bleach box for hop-up candidates.

Not so for Dale Walker, a four-time dragracing national champion with Top Fuel and Pro Street titles to his credit. Walker's Holeshot Performance (holeshot.com) parts business primarily caters to owners of performance standards and streetfighters, plus the occasional adventure bike. Walker has also carved an unlikely niche with an unmatched hop-up parts line dedicated to the Suzuki Bandit 1200 and 1250.

Get Walker talking about his beloved 2007 Bandit 1250-affectionately named Igor, "As in Dr. Frankenstein's helper"—and you had better have a good charge on your phone battery, as the list of specialty parts and modifications is impressive and long. Walker's enthusiasm runs deep. He sounds as much like a proud bike owner as the salesman he rightfully is. "I really love the old superbike-type bikes we used to build, the KZs and GSs," says Walker, who served as a development rider for Kosman Racing and also dabbled in amateur roadracing in the 1970s and '80s. "Then the Bandit came out in '97, and it just reminded me of that old superbike era."

Has Walker, a 59-year-old coastal California native who has built and raced some mean-ass record-setting fire-breathers in his time, grown soft with age? I certainly admire him for leaving the rat race in his tracks and retreating to the quiet life in Yerington, Nevada, where, ironically, he spends much of his days making noise on the shop's Dynojet Model 250 dyno developing exhaust systems and parts combinations that populate the Holeshot Performance catalog.



















Igor is the test bed for and benefactor of nearly every bit, piece, and machine service Holeshot offers for the big Bandito. This goes beyond engine performance, as Walker has also put a great deal of time and attention into improving the Bandit's chassis, suspension, and styling.

The first thing I noticed gazing at Igor is the Holeshot Street Fighter fairing (\$TBA) and front fender (\$169), both signature fiberglass parts formed by Walker himself. The Holeshot/Corbin Street Fighter saddle (\$393) has also been sculpted and skinned to Walker's own specification and made exclusively for Holeshot. The orange/black paintwork is by his good friend Dave Melvin and is laced with pearl in the clear coat that really bursts in direct sunlight.

Working from the ground up are Dunlop Sportmax Q3s mounted on exclusive Holeshot Carrozeria V-Trac forged aluminum wheels (\$1,999 a set), the front carrying a pair of Ferodo Brake Tech Axes full-floating rotors (\$640) bit by stock calipers loaded with Ferodo pads and plumbed with Galfer steel braided lines. The fork has been treated with a Race



Tech Gold Valve kit (\$161) and exclusive Cogent Dynamic fork springs (\$129) with a Cogent Dynamics custom shock (\$675) supporting the rear through Holeshot adjustable suspension struts (\$64.95) that can either raise the rear 1.25 inches for canyon carving or lower it by 1 inch for the strip. There's also a Holeshot billet fork brace (\$162) in place to minimize fork flex. Remember those?

The billet aluminum footpeg mounts are one of several bits produced by Metrick Metals, such as the injector/TPS covers, rear master cylinder cap, adjustable shift lever and rear grab rail, and passenger peg eliminator kits with a Cox Racing radiator guard (\$89) completing

the look. Beneath a Holeshot billet top bar clamp (\$59.95) is Walker's sport-touring bar (\$109), a proprietary bend inspired by early '80s superbikes that's wider and has a more natural bend than stock. His clever handlebar mirror conversion kit eliminates the stock fairing-mount mirrors, and CRG roll-a-click adjustable clutch and front brake levers (\$210) lend a nice touch of class. A Shintz programmable shift light (\$129) resides atop the dash in the cluster cleavage while the Heal Tech Electronics gear indicator kit (\$191) includes Walker's own custom mount bracket.

This brings us to the less visible components that comprise Walker's Stage 1 engine tune. Internals include a stan-



dard-bore forged JE high-compression (12.0:1) piston set (\$709) and Web cams (\$845) ground to Walker's specification along with headwork (\$799) that involves a Holeshot street port and three-angle valve job. Walker's ECU flash (\$215) raises the rev limit 800 rpm along with some slight ignition-timing adjustments. A Holeshot EFI Supertune Pro (\$277) is used for remapping fuel delivery and Walker's Stage 2 induction setup composed of an airbox mod, secondary throttle valve removal, and K&N air filter. The Holeshot 304 stainless handcrafted 4-2-1 full exhaust system (\$1,130) is capped with a 10-inch Bad Boy muffler. Quieter can and core options are also available.

Strapped to the CW dyno, Igor pounded out an impressive 139 peak horsepower at 8,780 rpm netting a 40-horse improvement over our stock 2016 Bandit 1250S testbike. Peak torque of 93.5 pound-feet at 6,030 rpm came in 13 over stock with even greater gains and notably smoother delivery across the upper part of the rev range. Furthermore, rolling Igor onto our scale revealed 480 pounds without fuel, an incredible 52-pound weight reduction!

With formalities out of the way, we headed for the twisty roads of the San Gabriel Mountains with Walker in tow astride our stock Bandit for comparison. Igor feels very content on the freeway with its engine settling into a 5,000-rpm

cruise at 80 mph freeway flow with the Bad Boy emitting a pleasing deep tone at cracked throttle. The ride over slab joints was firm without a harsh feeling, and the saddle and bar position offered what felt to be daylong comfort. The stubby opaque fly screen does a nice job of breaking the wind without creating turbulence at helmet level.

Climbing the serpentine Glendora Mountain Road was easy work thanks to crisp throttle response, loads of torque, and nimble, surefooted handling borne of light wheels, balanced suspension, and great leverage from the wide bars. The Bandit's broad power spread allowed carrying a gear or two higher than normal without breaking a sweat. But half the fun is snicking clutchless upshifts, thanks to the Holeshot Electric Power Shifter 2, an evolution of the very first product Walker brought to market nearly three decades ago. The Bandit 1250 kit (\$320) comes with a custom billet CNC trigger unit that resides behind the countershaft sprocket cover.

The brakes provide excellent power and feel, particularly appreciated when charging corner entries on the downhill return run. My favorite aspect of Igor's performance character was the ease in which I could carry a low-trajectory wheelie through side-to-side transitions in second gear with nothing more than an assertive twist of throttle—an antic the stock bike couldn't replicate even in low gear.

All told, Walker's bike is one bad Bandito that can run with the bulls. And well it should with a grand total for parts and services surpassing \$10,000. "But that's just Igor," Walker points out. "Most guys who call me with a brand-new bike start with the slip-on and my tune then step by step do the suspension mods. They also come back and add my front header section since I also offer separately."

Walker says he can get about 27 hp and about 12 to 14 pound-feet more torque from a stock engine without taking the valve cover off. "Now that the bikes have been out since 2007, way more guys call with low-mileage Bandits they got a killer deal on then pick from the Holeshot menu with my help to build their own personal toy. Most do their own work, and I really strive to help them with personal service on the phone, which is really hard to find these days."

Walker is sincere, and as I said, be certain to have a full charge on your mobile. Or better yet, use a landline.



HONDA MAKES A TRACTOR?

Okay, I went really retro and purchased a 2015 Honda XR650L. I know all about the de-smog, uncorking, and re-jetting mods, but is it true that leaving it in the factory stock super-lean mode could be damaging to the engine? It seems no one keeps theirs stock.

WALKER SATTERWHITE IACKSON. MS

Apparently, everyone else but you wants to go faster. Your XR650L will run forever, so long as you keep clean oil in it. Honda would not sell a model in a state of tune that would damage the engine. If you have a need for speed, a few simple jetting mods will free up more power.

CLUTCH CONCERNS

I had the clutch cable of my Suzuki M109R snap on me two years ago and had it replaced. The next year, it took a lot of force and the clutch didn't engage until it was close to the handlebar. I asked the dealer for an adjustment. He said the cable would have stretched over the year and did need an adjustment. Fast-forward to this spring: I notice a similar issue with the clutch, and the bike was not engaging properly into neutral at a stop. I tried shifting to second and down to neutral, but the gear would skip to first. I would turn the bike off and put the bike into neutral. A Suzuki dealer who opened up the clutch assembly told me I needed a new clutch assembly because the two inner pressure plates were scorched. The service manager asked if I use synthetic oil. I said yes. Could you elaborate? Could it be that the clutch cable was not properly installed?

DOUG LALONDE CYCLEWORLD.COM

Synthetic oil is better oil, with superior thermal stability. No problems should arise from using it. But we are talking about motorcycle oil, not car oil, right? Current automotive oils use additives that are too slippery for wet clutches. They may work fine in some cases, but why take the

chance? It is probable that your clutch slipped enough to burn up the plates. either from misuse (which doesn't seem to be the case here), too tight an adjustment, or the use of automotive oil. Once the damage is done and the plates have warped, it may drag even when the lever is pulled all the way in. This will cause the hard shifting and excessive clashing of the gears you have experienced. The adjustment on the pushrod, located under the right-hand engine cover (no access hole on your bike, sorry), must be adjusted correctly before adjusting the cable at the control lever. As long as your dealer adjusts the new clutch properly and fills the engine with the proper oil, your clutch troubles should be over.

MASTER REBUILD?

I've got a 2006 Suzuki DL1000 that I will be replacing the brake pads on and upgrading to braided steel lines. I was wondering if there is any advantage in rebuilding the master cylinders and calipers while I have things apart? I do not have any issues, but the parts are cheap and it seems like a good time to refresh the whole system.

SEAN MURPHY CYCLEWORLD.COM

Call us crazy, but we like having brakes we can trust absolutely, so do it. As you say, you've got it apart anyway, and the parts are cheap. If the fluid has been changed religiously every two years, the cylinder bores should be like new, and with fresh rubber you've got peace of mind for another nine-plus years. You knuckleheads out there who haven't been changing your fluid every two years, shame on you. Rebuild that system before the big metal bits are corroded beyond use or you have an exciting moment on the road.

INTERMITTENT STREET GLIDE

I've owned a 2006 H-D Street Glide since new. The only upgrade was at purchase: Stage 1 air cleaner, mufflers, and remapping download. On occasion, since new, it will lose all electrical power. I can switch it off, then on, toggle the kill switch, and it fires right up. May not

GOT A MECHANICAL OR TECHNICAL PROBLEM with your beloved ride? Perhaps we can help. Contact us at cwservice@cycleworld.com with your questions. We cannot quarantee a reply to every inquiry.



YEARS SOLD: 2003–2006 MSRP NEW: \$14,795 ('03) to \$14,995 ('06) BLUE BOOK RETAIL VALUE: \$4,810 ('03) to \$6,370 ('06)

BASIC SPECS: Introduced alongside the 999 superbike, the 749S is essentially a 999 with downsized bore and stroke dimensions that yield 748cc of displacement. The 90-degree V-twin, a belt-drive DOHC design with four valves per cylinder, has Ducati's signature desmodromic valve actuation. The 749S shares many parts with the 999, including a fully adjustable Showa 43mm inverted fork with TiNcoated stanchions and shock with progressive linkage. The tubular steel-trellis frame has an adjustable steering head, which allows a choice of 24.5 or 23.5 degrees of rake, a three-position tank/seat/tail adjustment, and five footrest locations.

WHY IT'S DESIRABLE: Ducati's 749 was produced in a trio of flavors. The Dark version, priced most affordably, had lower-spec suspension and none of the S's added chassis adjustability. The 749R homologation special featured race-quality Öhlins suspension along with a race engine tune that featured a shorter stroke, a larger bore, and bigger valves for improved high-rpm output. The S hits the sweet spot for sporting street use and club racing, thanks to its broader spread of power and superb chassis stability.

THE COMPETITION: Ducati held the upper hand for mid-displacement V-twin performance over the Buell XB9R, but the usual cast of 600cc Japanese inline-four supersports offered near equivalent performances at an enticing price. Triumph introduced its Daytona 675 in 2006, giving buyers and race fans yet another alternative in this increasingly crowded category.

do it again for weeks. It does it in hot weather or cold, high altitude or low, on throttle or off. Local dealer and independent shops are stumped.

> MICHAEL HUSS NORTH CAROLINA

Intermittent electrical problems are a bugger. Patience and perseverance are virtues, Michael, but nine years? You are one patient dude. I've got two probable causes for your intermittent problem. As always, check the main ground connection first to be sure it is good. Don't just look at it: Pull it, clean it, and refit. The most likely culprit is your ignition switch. I think Harley had a recall on earlier model switches, so yours may or may not be covered by that, but just replace it. Now check the body control module. A bad module will think the bike is being stolen and cut the power, when it is obviously not.

MYSTERIOUS COOLANT LEAK

My 2001 Kawasaki ZX6R with a little over 25,000 miles has been leaking a bit of coolant out of the weep hole on the bottom of the water pump. It is certainly not a stream of coolant, but there are consistently drips on the inside of the fairing while, and after, riding the bike. I took the bike to a dealer for an unrelated issue and asked them about the possible causes of the leak. I was sure to mention that I had replaced the mechanical seal about nine months ago due to my assumption that it was the problem. It has continued to leak since replacing the seal and has recently gotten worse. The dealer said it could be due to two possible problems: (1) The mechanical seal could be bad or could be ruined because the bike had "automotive antifreeze" in it, which contains silica that will destroy mechanical seals in bikes, or (2) the water-pump shaft could be worn, causing the seal to leak. Do you have any opinions as to what the problem could be? Also, is the dealer just confused about a difference in antifreeze for cars versus motorcycles, or is there merit to his claim?

> NASH NORRIS CYCLEWORLD.COM

It used to be so simple: Bikes were air-cooled, and cars used green antifreeze. Now it seems every manufacturer, bike or car, has its very own special color coolant. You can run

auto coolant in your bike. Technically, the coolants with silicates are harder on seals, but you'll never know the difference. The newer OAT or HOAT (organic acid tech/hybrid organic acid tech) coolants do seem to leak less easily from minor imperfections than the conventional IAT (inorganic acid tech) green stuff.

If the seal leaked before and it leaks now, something else is wrong. Seals used in bike water pumps aren't that much different from automotive seals. I doubt the new seal is bad. But it is quite easy to damage a new seal when installing. Be gentle. Take it back apart and make sure you didn't bend the shaft when prying the old seal out. Drill a small hole in the side of the seal and slide hammer it out instead. If the shaft wobbles, you did a bad thing. It must run true. Acid from your skin can damage the carbon seal face, so don't touch the carbon or matching porcelain ring with your fingers when installing. If the housing is scored or corroded a little, weather strip glue will seal it and be impervious to coolant.

LITHIUM OR LEAD-ACID BATTERY FOR AN OLD NIGHTHAWK?

A friend recently installed a lithium replacement battery in his ■1983 Honda CB550SC Nighthawk, which I had owned previously since new. He reports that after several short trips, the initially fully charged lithium battery had discharged. Voltage measured at the battery is 14-plus at fast idle. Using OEM Yuasa replacement batteries, I had never experienced this kind of issue with the same motorcycle. The electrical system has not been checked for something that might cause an abnormal drain. More diagnosis may be required, but this situation does bring to mind a question I have pondered for a long time: Is a lithium replacement battery a match for the older motorcycle electrical/charging systems?

KEN MATHIAS

CYCLEWORLD.COM

A good-quality lead-acid battery is more forgiving of less than optimum conditions than the equivalent lithium battery. Sealed AGM lead-acid batteries are especially hard to beat, particularly when kept on a tender-type charger during storage. The primary advantages to lithium types are their light weight and small size. The disadvantages (besides the higher cost)

are that they have different properties than what we are used to. I spoke with Shawn Higbee, technical director at Shorai Battery, to get his advice regarding usage in older bikes.

Lithium batteries have higher cranking amperages but only about one-third the capacity of a comparable lead-acid. If your bike has any significant current drain when "off," it will be best to not let it sit too long without an automatic lithium charger on it. The standing voltage for a freshly charged lithium is 14.4 volts. This will normally gradually drop to 13.3 volts over time. The battery can still quickly be brought back to 100 percent charge in few minutes with a lithium charger. But at just 0.2 volt lower, 13.1 volts, they are at 50 percent capacity and should be charged. If charged with a lead-acid charger when at 13.1 volts or lower, chances are some cells of the lithium battery may overheat and be damaged. Lithium-specific chargers charge differently. Shorai calls it balanced charging, which means it keeps the cells in the battery evenly charged.

Below 12.86 volts, only a lithium charger will be able to recover the battery. So if you run the battery down, don't count on jumping your old bike and then expect it to recharge properly on the go. If your older bike's charging rate regularly falls outside of the recommended 13.6 to 14.4 volts, the battery may not give satisfactory service. When charging with a lead-acid charger, the rate should be kept under 2 amps. Tender-type chargers are also a no-no. The float voltage is set too low for the required 13.3 volts. Desulfation or deep-cycle conditioning features will also damage a lithium battery.

MY TRIUMPH "TANKS" YOU

I have a 1974 Triumph Bonneville T140 with 28,000 miles. The pre-■ vious owner told me the engine has never been opened. This summer I had the pleasure of riding the Blue Ridge Parkway on a very hot 85-degree day. On the long and steep hills, the motor pulled well between 3K and 4K. But going down the other side of the mountain, the noise and banging started. With gas completely off, engine-braking at about 50 mph, I heard a very loud "tank-tanktank" sound. It was a very loud sound, like a small hammer tapping a piece of alloy, and was in exact synch to the valve train's normal tap sound. Immediately I pulled in the clutch allowing the motor

ASK KEVIN

PARALLEL TWIN VS. V-TWIN

I see the new Honda Africa Twin is powered by a parallel twin, not a V-twin as in the previous bike. What advantages does this arrangement offer? And what potential disadvantages?

> BEN SEMBER CYCLEWORLD.COM

My first interest here is the 500-pound weights of the bikes in this ADV class. Should they be renamed "off-road tourers"? With all that "downforce," they need all the displacement the makers are giving them.

My first thought: Honda might have been able to reduce the wheelbase a bit with a parallel twin versus the previous V-twin, but both chassis are 62-inchers. Second: There surely are some production economies in a parallel twin: fewer camshafts, only a single-cam drive, a single-cylinder block, etc. Costs are important in the present market.

Another point: A parallel twin packages well. The usual claim for V-twins is that they are narrow, but in fact once an alternator is put on one end of the crank and a primary drive on the other, the overall width could be achieved just as easily with a parallel twin. So, with two (more or less) vertical cylinders, the engine can go forward toward the front wheel, and there is no rear



cylinder and exhaust pipe claiming space to the rear, making some volume available behind the cylinders.

Some will note that this parallel twin requires a balancer, which adds complication, but the only balanced V-twins have (1) a 90-degree V-angle (Ducati, Moto Guzzi), or (2) not-so-durable offset crankpins (Honda Ascot), or (3) twin balance shafts (Aprilia RS1000). As engines are made bigger in displacement, piston-shaking force increases.

I'm glad to see that a DCT is offered because I'm all for reduced operator workload. The new Africa Twin's two crankpins are set at 270 degrees. This gives the exhaust a V-twin-like syncopation, and some will argue that it benefits traction. The traction argument is this: With 360-degree crankpin spacing, both pistons are stopped together at top and bottom center, imposing an inertial "flutter" on crank speed, as the two pistons take energy from it as they accelerate and give it back as they decelerate. But with the 270-degree spacing, when one piston is stopped at TDC or BDC, the other is at close to maximum speed in midstroke, so the pistons exchange energy with each other, not with the crank. But how can we know?

–Kevin Cameron

to idle. It made the "tank" sound for maybe another 10 seconds before returning to normal. This "tank" sound would not happen again until I was going down another steep grade—but not every time. By the way, one time I gave it gas to see if the bike would accelerate while that "tank" noise was going on, and there was no power at all.

PAUL BITTINGER DETROIT, MI

Twenty-eight thousand miles is a long way for a vintage Triumph engine to be original. Are you positive the previous owner didn't seize her once, have the top end redone, and

neglect to mention it to you? My guess is you have an inlet valve that is sticking open slightly. Your "tank" noise and power loss is the result of the excessive valve clearance when the valve is hanging up slightly off its seat. If the engine truly hasn't been opened up, the guides are shot, and the valves are wobbling around while attempting to seat. It is possible a valve spring has broken; the seats have tons of carbon on them; a worn guide is allowing the rocker to hit off the central worn spot of the stem; or a guide is moving around in the head. Another possibility is ethanol varnish on a valve guide and stem making it sticky. When it idles for a while, it settles and

everything seems hunky-dory until the next time it happens. The good news: It won't do this for long! Edward Turner is rumored to have said that British bike owners enjoy decarbonizing their bikes every few months.

REVIVING A TWINSTAR 200

I am stumped. The bike is a 1981 Honda Twinstar 200. It came with the wrong carb but the original in a box. I completely cleaned and rebuilt the original Keihin carb and installed it with no difficulty. It runs fine, never bogs, idles perfectly, and never needs the choke. But particularly when it is cold, it takes just under a

second to return to idle speed when I let off the throttle. It always goes back to idle speed, just not instantly like you would expect. The big needle in the center of the carb does not have different clip settings, just one. The air/fuel screw on the right can raise the idle, but that's about it. Also, just out of curiosity, why does this bike have an on/off switch on the handlebar while having a key ignition that seems to do the exact same thing?

> PRATT MATTISON CYCLEWORLD.COM

After you've had your throttle stick wide open once, you will ■ understand why that on/off handlebar switch is known as a "kill switch." Attempting to find the ignition key in a moment of panic can be perilous. In addition, since most modern ignition switches also incorporate a steering head lock, turning it off while motoring may end your ride most unpleasantly.

Your bike sounds like it's running

too rich. The slow return to idle and not needing any choke are both clues of rich running. Pull your spark plugs and look at the color of the insulators in the center of the plug. They should be a nice light-tan color but will be darker if too rich. Remove the air filter and see if it runs better. Look very closely at the main needle and the jet it rides in. The clearances between needle and needle jet are very sensitive. Any perceptible wear here will cause rich running. It is also possible that someone tampered with this carb and drilled out the needle jet or main jet in a misguided attempt to make it run better. Buy and fit a rebuild kit that includes new jets and the needle.

RICH RADIAN: BOATS ARE SINKING?

I have a stock 1986 Yamaha Radian 600 project bike. I start it up and it runs well until it's warmed up. Then the bike becomes boggy or sluggish on acceleration. In addition, the idle is not consistent.

and plugs are black and sooty. I have adjusted the floats and cleaned the carbs. Black and sooty plugs mean it's running too rich. What are some other things I can check, test, or do?

> J. MCCONNELL NORTHFIELD. OH

So far, so good. Pull the air filter element out and see if it runs ■ better. If the element has been soaked in the past with fuel, crankcase fumes, or road splash, it might still look okay but be hopelessly plugged up now. Also check for any fuel leaking into the airbox from leaky float valves. Never a good thing for many reasons! Many bikes will fill the crankcase with gas if the float bowls flood. Is your oil level mysteriously higher than you swore it was last time you checked? Smell your crankcase oil to see if has been diluted with fuel, or just change the oil and be sure. Lastly, double-check those floats to be sure they aren't heavy with fuel and your "boats" are sinking.

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A YEAR OF LIVING DANGEROUSLY

The 2015 MXGP season concludes at Glen Helen

By Brian Catterson

R

acing can be sooo predictable. Ricky Carmichael and James Stewart have perfect seasons. Antonio Cairoli earns six consecutive world championships. Jeffrey Herlings wins 18 GPs in a row.

And then, all of a sudden, it's not. And seldom has racing been less predictable than during the 2015 MXGP World Championship.

Unless you've been living under a rock—or you're a roadracing elitist—you know that four-time AMA Supercross Champion Ryan Villopoto decided to spend the final year of his career on a "European vacation." His par-

ticipation attracted unprecedented interest in the MXGPs, as it promised to once and for all answer the age-old question of who really is better: us or them? And more specifically: Villopoto or Cairoli? To wit, CBS Sports inked a deal for same-day coverage of the 18-race series, and Glen Helen Raceway signed on to host the season finale.

Villopoto's season got off to an inauspicious start under the lights in Qatar when he stalled his Kawasaki on the starting line. Recovering from that faux pas, he finished a lowly (for him) seventh overall, his supercrossstiff suspension clearly not working. After a hurried return to Europe for more testing, he won the following weekend's round in Thailand in dominant fashion and then finished a credible fourth at Patagonia in Argentina. But then, in round four at Trentino, Italy, there came the loopout heard



MXGP: Although nowhere near rivaling attendance at the AMA National last May, the USGP drew thousands more spectators than it did the last time it visited Glen Helen in 2010–2011. The Southern California venue also hosted a 500cc Grand Prix back in 1990-1991.





To many, Cooper Webb (175) seemed like an odd choice to race the MX Open class at the Motocross of Nations, but Team USA manager Roger DeCoster saw his potential. Webb used the USCP as a warm-up and showed world-class speed.



'round the world. Even Villopoto joked about it being a "rookie move"—he was an MXGP rookie, after all—but it probably had more to do with his unfamiliarity with his Monster Energy team's works Kawasaki. And there was speculation that electronics (traction control anyone?) may have had something to do with it. Unlike the AMA series, which requires production-based machines, the FIM allows full-on factory prototypes—witness the electric-start Yamahas, for, um, starters.

Tragically, Villopoto broke his tailbone, which ultimately led to him retiring midseason—something that he actually wanted to do at the end of the 2014 Super-

cross season. Motocross is one of the world's toughest sports, and Villopoto was weary of the grind and battling back from injuries.

Villopoto's departure could have taken the wind out of MXGP's sails, but by now US fans had drunk the Kool-Aid and were following the series in earnest. And why not, as high drama unfolded seemingly at every round.

The early season surprise was German Max Nagl winning three of the first four rounds and heading the point standings on his new Husqvarna. By the midway point he had a healthy lead, but he injured his foot in his home race at Teutschenthal, Germany, and missed five rounds.

Belgian Clement DeSalle held the red plate briefly after winning the first moto in Argentina on his Suzuki, but he dislocated his shoulder in France and then again in Belgium, missing 10 rounds.

Cairoli started the season off slowly, finally giving up on his triedand-true KTM 350 SX-F and moving up to a 450 to win rounds six and seven in Spain and Great Britain. But he fell in the second Italian GP at Maggiora, suffering hairline fractures in his arm. Although he soldiered on through the following three weekends, doctors soon determined that the bone wasn't healing, and, like Nagl, he sat out five rounds.

And those weren't the only riders on the Disabled List: Dylan Ferrandis, Kevin Strijbos, Ken De Dycker, Davide Guarneri, David Philippaerts, and Steven Frossard were also hurt, the latter critically as he struggled to recover feeling in his legs. By season's end, only 13 riders had completed all 18 GPs.

Why so many injuries this year? Some of the blame was placed on the circuits, which at the European rounds in particular



Jessy Nelson (79) gave a virtual riding clinic, winning both MX2 motos by a mile. He obviously wasn't there for the money because there's no purse in the GPs, but his Lucas Oil/Troy Lee Designs KTM team reportedly gave him a bonus.

the number of support classes. The fact that the MXGPs run two days (Saturday for qualifying, Sunday for racing) as opposed to the AMA's one day also arguably exposes the riders to greater risk. But more than anything it may have been the high level of competition, as the top MXGP riders set a torrid pace at the front.

The benefactor in all of this

were dangerously rough due to

The benefactor in all of this was MXGP rookie Romain Febvre (pronounced like Brett does "Favre"). Coming into the season the 23-year-old Frenchman had just one MX2 win on his résumé, thus he was on no one's radar. But by midseason he had caught fire, scoring his first podium, his first moto win, and his first overall win in successive races.



After losing his ride when Chad Reed closed the doors on his Two Two Motorsports team, Josh Grant (35) was picked up by the factory Monster Energy Kawasaki team to fill in for Davi Millsaps and Wil Hahn. Grant's second-moto win should help him find a ride for 2016.



Newly crowned 2015 MXGP World Champion Romain Febvre (461) threw a heel-clicker after winning Sunday's first moto, just as Josh Grant had done after winning Saturday's qualifying race. Next stop for the Frenchman was defending his country's crown at the Motocross of Nations.

By year's end, he had claimed 15 moto wins (including 13 of the last 20) and eight overall victories. At the third-to-last round on an artificial track built within the confines of the classic Assen TT road race circuit in Holland, he finished second overall to clinch his first world title—and the first-ever by a Frenchman in the premier class.

With Villopoto gone and Febvre crowned, there wasn't much hope of Glen Helen drawing a crowd. There was a spark of excitement when news broke that Cairoli would be returning (Glen Helen being one of his favorite tracks), plus KTM USA team manager Roger DeCoster had pledged his team's participation. Would we see a Ryan Dungey versus Tony Cairoli showdown? But that quickly fizzled when it was learned that the reigning AMA Supercross and Motocross Champion had begged out. After six-straight years of contesting the season-ending Motocross of Nations Dungey said he needed a break and took his wife on a long-overdue honeymoon.

Yet even so, a surprisingly large crown showed up, and the few American riders who did take part made a serious splash on the hilly, jumpy, rough, and rocky circuit. In triple-digit temperatures, Southern Californian Josh Grant (substituting for Wil Hahn and Davi Millsaps on the Monster Energy Kawasaki) won Saturday's qualifying race. North Carolinian Cooper Webb (getting some seat time on a Yamaha YZ450F in anticipation of the following weekend's Motocross

of Nations) then grabbed the holeshot of Sunday's first moto and led until being passed by Grant. That boded well for America, but Grant ran over his foot and tweaked his ankle, which allowed Webb and Febvre past. Near the end, Febvre passed Webb to take the moto win.

Cairoli nailed the holeshot to start the second moto and battled with Webb and Grant before falling off the pace and eventually pulling out, his stillhealing arm giving him trouble. Riding with his ailing ankle taped, Grant checked out, while Webb ran off course and dropped a few positions before recovering to claim third. Febvre again put on a late-moto charge, however, and closed within a few bike-lengths of Grant. Just when it looked certain the moto victory would be his, Febvre's front end washed out in the hairpin atop Mount Saint Helens and he fell, giving Grant the cushion he needed. Still Febvre's 1-2 moto finishes trumped Grant's 3-1 and Webb's 2-3 for the overall win. Everyone was smiling on the podium, none more so than Febvre.

But the real winners were MXGP promoters Youthstream, who through Villopoto's brief participation and a successful USGP picked up legions of new American fans. To that end, not only will the series return to Glen Helen to conclude the 2016 season, but it will also visit Charlotte Motor Speedway for a Saturday-night race under the lights one week prior.

Hopefully everyone will stay healthy until then.

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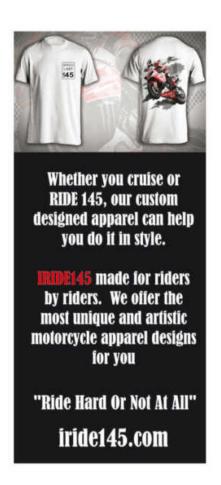


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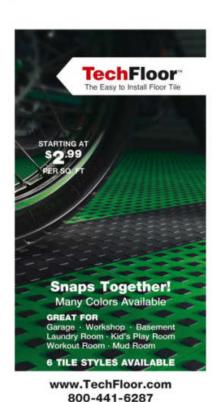
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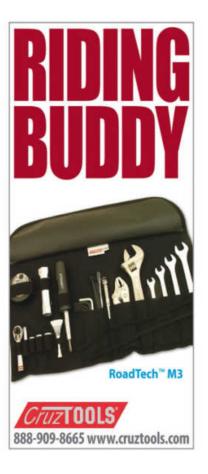






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